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ABSTRACT

This module, one in a series of performance-based teacher education learning packages, focuses on skills that vocational educators and other occupational trainers need to create learning environments that are accessible, accommodating, and equitable in meeting instructional needs of exceptional students. The purpose of the module is to give educators skill in acquiring additional, more specialized skills in providing appropriate instructional materials for students with exceptional needs. Introductory material provides terminal and enabling objectives, prerequisites, necessary resources, terminology, and general information. The main portion of the guide includes three learning experiences on the enabling objectives. Each learning experience presents educational activities with information sheets, samples, and checklists that are intended for use in evaluation. Optional activities are also provided. Completion of these three learning experiences should lead to achievement of the terminal objective through the fourth and final learning experience that provides for a teacher performance assessment by a resource person. An assessment form is included. (YLB)

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MODULE

L-4

Provide Appropriate Instructional Materials for Exceptional Students

Module L-4 of Category L—
Serving Students with Special/Exceptional Needs
PROFESSIONAL TEACHER EDUCATION MODULE SERIES

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FOREWORD

This module is one of a series of 127 performance-based teacher education (PBTE) learning packages focusing upon specific professional competencies of vocational teachers. The competencies upon which these modules are based were identified and verified through research as being important to successful vocational teaching at both the secondary and postsecondary levels of instruction. The modules are suitable for the preparation of teachers and other occupational trainers in all occupational areas.

Each module provides learning experiences that integrate theory and application; each culminates with criterion-referenced assessment of the teacher's (instructor's, trainer's) performance of the specified competency. The materials are designed for use by teachers-in-training working individually or in groups under the direction and with the assistance of teacher educators or others acting as resource persons. Resource persons should be skilled in the teacher competencies being developed and should be thoroughly oriented to PBTE concepts and procedures before using these materials.

The design of the materials provides considerable flexibility for planning and conducting performance-based training programs for preservice and inservice teachers, as well as business-industry-labor trainers, to meet a wide variety of individual needs and interests. The materials are intended for use by universities and colleges, state departments of education, postsecondary institutions, local education agencies, and others responsible for the professional development of vocational teachers and other occupational trainers.

The PBTE curriculum packages in Category L—Serving Students with Special/Exceptional Needs—are designed to enable vocational teachers and other occupational trainers to create learning environments that are accessible, accommodating, and equitable in meeting the instructional needs of individuals in those groups previously denied equal vocational education opportunities. The modules are based upon 380 teacher competencies identified and verified as essential for vocational teachers to meet the special needs of all students in their classes. Included are special populations such as the handicapped, adults pursuing retraining, and students enrolled in programs that are nontraditional for their sex.

Many individuals and institutions have contributed to the research, development, testing, and revision of these significant training materials. Appreciation is extended to the following individuals who, as members of the project technical panel, advised project staff, identified human and material resources, and reviewed draft materials: James B. Boyer, Ken Dieckhoff, Mary M. Frasier, Gerald R. Fuller, Juan Guzman, Jerry Holloway, Barbara Kemp, Jeffrey G. Keily, Betty Ross-Thomson, Ann Turnham-Smith, and Richard Tyler.

Appreciation is also extended to the approximately 80 vocational teachers and supervisors from throughout the United States who served on the eight DACUM analysis panels that assisted National Center staff in the initial identification of the teacher competency statements. Appreciation is extended, too, to the 80 additional teachers and supervisors from throughout the United States who assisted in the verification of the 380 competencies.

Field testing of the materials was carried out with assistance of field-site coordinators, teacher educators, students, directors of staff development, and others at the following institutions: University of Alabama–Birmingham; Albuquerque Technical-Vocational Institute, New Mexico; University of Central Florida; University of Southern Maine; Maricopa County Community College District, Arizona; Murray State University, Kentucky; University of New Hampshire; SUNY College of Technology–Utica, New York; Temple University, Pennsylvania; Texas State Technical College; Upper Valley Joint Vocational School, Ohio; and Central Washington University.

Special recognition for major individual roles in the development of these materials is extended to the following National Center staff: Lucille Campbell-Thrane, Associate Director, Development Division, and James B. Hamilton, Program Director, for leadership and direction of the project; Lois G. Harrington, Karen M. Quinn, and Michael E. Wonacott, Program Associates, for training of module writers and module quality control; Cheryl M. Lowry, Research Specialist, for developing illustration specifications; Kevin Burke and Barbara Shea for art work; Nancy Lust, Research Specialist, and Wheeler Richards, Graduate Research Associate, for assisting in the coordination of module field testing and data summarization; and Catherine C. King-Fitch, Program Associate, for revision of the materials following field testing. Special recognition is also extended to George W. Smith Jr., Art Director at AAVIM, for supervision of the module production process.

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THE NATIONAL CENTER FOR RESEARCH IN VOCATIONAL EDUCATION
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The National Center for Research in Vocational Education's mission is to increase the ability of diverse agencies, institutions, and organizations to solve educational problems relating to individual career planning, preparation, and progression. The National Center fulfills its mission by:

- Generating knowledge through research.
- Developing educational programs and products.
- Evaluating individual program needs and outcomes.
- Providing information for national planning and policy.
- Installing educational programs and products.
- Operating information systems and services.
- Conducting leadership development and training programs.

AAVIM
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The American Association for Vocational Instructional Materials (AAVIM) is a nonprofit national institute.

The institute is a cooperative effort of universities, colleges and divisions of vocational and technical education in the United States and Canada to provide for excellence in instructional materials.

Direction is given by a representative from each of the states, provinces and territories. AAVIM also works closely with teacher organizations, government agencies and industry.

INTRODUCTION

Providing appropriate instructional materials for your students has become more important than ever before. Good teachers have always used instructional materials to help meet the needs of their students. But never before have the needs of those students been so diverse.

How can you use the fairly quick-paced materials you are accustomed to, now that a mentally retarded student is in your class? Where can you find materials to supplement your usual film, once a blind student joins your class? You are likely to be faced with such questions now that different kinds of students are enrolling in regular vocational-technical classes and now that the needs of individual students are being recognized as different.

Providing instructional materials to meet what could be a wide range of student needs is quite a challenge. Fortunately, however, most of the principles and skills involved in providing materials for students with exceptional needs are the same as those you have used in providing materials in the past.

This module is designed to help you to acquire additional, more specialized skills in providing appropriate instructional materials. The first step will be to evaluate those materials you already have. You will be asking yourself two questions: (1) Are these materials biased against persons of either sex, of different ages, of different racial/ethnic groups, of different income groups, or with various handicapping conditions? and (2) Do the characteristics of these materials fit the learning capabilities of the students with exceptional needs who are in my class?

The answers to these questions will help you decide whether the materials are appropriate as is, can be adapted, or are so inappropriate that they should not be used. If they cannot be used or adapted for use, you will have to select or develop more suitable materials. This module will help you answer these questions and make these decisions regarding how to provide appropriate instructional materials.

Learning and implementing the principles and skills necessary to meet more diverse student needs may initially require extra time and concern on your part. But the payoff can be enormous. Providing appropriate materials for students with exceptional needs will help ensure their success in your class and your success as their teacher.

ABOUT THIS MODULE

Objectives

Terminal Objective: In an actual teaching situation, provide appropriate instructional materials for exceptional students. Your performance will be assessed by your resource person, using the Teacher Performance Assessment Form, pp. 57–59. *(Learning Experience IV).*

Enabling Objectives:

1. After completing the required reading, evaluate given instructional materials for bias *(Learning Experience I).*
2. After completing the required reading, evaluate selected instructional materials to determine whether they match the capabilities of the student described in a given profile *(Learning Experience II).*
3. After completing the required reading, adapt operation sheets to match the capabilities of students with a given exceptional need *(Learning Experience III).*

Prerequisites

The modules in Category L are **not** designed for the prospective teacher with no prior training and/or experience. They assume that you have achieved a minimal level of skill in the core teacher competencies of instructional planning, execution, and evaluation. They then build on or expand that skill level, specifically in terms of serving students with special/exceptional needs.

In addition, to complete this module, you should have defined or redefined your educational philosophy to include your responsibility for serving students with exceptional needs; and you should have competency in identifying and diagnosing the needs of these students. If you do not already meet these requirements, meet with your resource person to determine what method you will use to do so. One option is to complete the information and practice activities in the following modules:

- *Prepare Yourself to Serve Exceptional Students,* Module L-1
- *Identify/Diagnose Exceptional Students,* Module L-2

Resources

A list of the outside resources that supplement those contained within the module follows. Check with your resource person (1) to determine the availability and the location of these resources, (2) to locate additional references in your occupational specialty, and (3) to get assistance in setting up activities with peers or observations of skilled teachers, if necessary. Your resource person may also be contacted if you have any difficulty with directions or in assessing your progress at any time.

Learning Experience I

Optional

An individual experienced in evaluating materials for bias, such as your state's sex equity coordinator or someone in charge of evaluating materials for a school or college, whom you can interview.

Audiovisual instructional materials that you can evaluate for bias.

Appropriate audiovisual equipment to use in viewing and/or listening to the audiovisual instructional materials.

A peer with whom you can compare evaluations of audiovisual instructional materials.

Learning Experience II

Required

Student instructional materials that you can evaluate to determine whether they match the capabilities of a given student with exceptional needs.

A resource person to evaluate your competency in evaluating selected materials to determine whether they match the capabilities of a given student with exceptional needs.

Learning Experience III

Required

An operation sheet for your vocational service area that you can adapt to a given reading level.

A resource person to evaluate your competency in adapting an operation sheet.

Learning Experience IV

Required

An actual teaching situation in which you can provide appropriate instructional materials for exceptional students.

A resource person to assess your competency in providing appropriate instructional materials for exceptional students.

Terminology

Special/Exceptional Needs: Referred to in the modules simply as exceptional needs, this term refers to those needs that may prevent a student from succeeding in regular vocational education classes without special consideration and help. The following types of students are included in our definition of students with exceptional needs:

- Persons enrolled in programs nontraditional for their sex (e.g., the male in home economics)
- Adults requiring retraining (e.g., displaced homemakers, technologically displaced)
- Persons with limited English proficiency
- Members of racial/ethnic minority groups
- Urban/rural economically disadvantaged
- Gifted and talented
- Mentally retarded
- Sensory & physically impaired

General Information

For information about the general organization of each performance-based teacher education (PBTE) module, general procedures for its use, and terminology that is common to all the modules, see About Using the National Center's PBTE Modules on the inside back cover. For more in-depth information on how to use the modules in teacher/trainer education programs, you may wish to refer to three related documents:

The *Student Guide to Using Performance-Based Teacher Education Materials* is designed to help orient preservice and inservice teachers and occupational trainers to PBTE in general and to the PBTE materials.

The *Resource Person Guide to Using Performance-Based Teacher Education Materials* can help prospective resource persons to guide and assist preservice and inservice teachers and occupational trainers in the development of professional teaching competencies through use of the PBTE modules. It also includes lists of all the module competencies, as well as a listing of the supplementary resources and the addresses where they can be obtained.

The *Guide to the Implementation of Performance-Based Teacher Education* is designed to help those who will administer the PBTE program. It contains answers to implementation questions, possible solutions to problems, and alternative courses of action.

NOTES

Learning Experience I

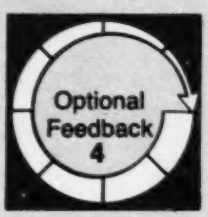
OVERVIEW

After completing the required reading, evaluate given instructional materials for bias.

You will be reading the information sheet, Checking for Bias, pp. 9–15.

You may wish to meet with and interview someone experienced in evaluating instructional materials for bias.

You may wish to evaluate audiovisual instructional materials (videotapes, films, filmstrips, audiotapes, or slide presentations) for bias. You may also wish to ask a peer who is also completing this module to make a separate evaluation of the same material.



If you and a peer evaluated audiovisual instructional materials for bias, you may wish to compare evaluations.

You will be evaluating the hypothetical Textbook Chapter, pp. 16–18, for bias, using the Bias Checklist, p. 19.

You will be evaluating your competency in evaluating the textbook chapter for bias by comparing your completed Bias Checklist with the Model Bias Checklist, pp. 21–22.

Activity 1

Instructional materials often contain bias that can be harmful to students. For information about how to evaluate student instructional materials to determine whether they contain bias, read the following information sheet.

CHECKING FOR BIAS

All good teachers attempt to provide their students with instructional materials that (1) reflect the program content, (2) match the students' needs, interests, and abilities, and (3) are appropriate for the available time, money, equipment, and facilities. Providing materials for students with exceptional needs amounts to the same thing. The only difference is that you may have to expand your notion of what constitutes a student's needs, interests, and abilities. And you may have to look a little further afield to find appropriate materials.

Most instructional materials have been designed with a mythical "average" student in mind. Although no such "average" student probably exists, these materials can be used successfully with many students. However, the characteristics of students with exceptional needs may be **significantly different** from those of the mythical "average" student for whom the materials were designed. Consequently, students with exceptional needs may have difficulty using these materials.

It is easy to think of examples of materials that are inappropriate for some students with exceptional needs because the **students are not capable of using them.** Books that have a high reading level cannot be easily used by a student who reads at the second-grade level, for example. Demonstration films or videotapes may not benefit some visually impaired students. Transparencies that use abstract symbols may be inappropriate for some mentally retarded students.

However, some materials are inappropriate for students with exceptional needs even if the students are capable of using them. These are the **materials that include bias**—through errors of omission or commission. Consequently, these materials shortchange students.

A good example of such materials is the home economics textbook that is well-written, attractive, and technically sound but that includes illustrations showing **only females** employed in home-economics-related tasks. Such a book is not, therefore, the best text for the male students in the home economics classes. The illustrations may help female students imagine themselves performing the tasks depicted. However, they would probably not help male students in the same way.

The illustrations would probably also foster the false idea among the students that only females are employed in the home economics field. Therefore, the book is not appropriate for the students. That doesn't necessarily mean that the instructor will not be able to use the book. It only means that he or she will need to learn ways to adapt the illustrations or to adapt his/her use of the book.

The example of the home economics textbook illustrates perhaps the most important way in which instructional materials can shortchange students with exceptional needs. That is, materials are often biased against students who do not resemble the mythical "average" student for whom they were designed.

The first step in providing appropriate materials for your students is to evaluate the materials you already have. A large part of that evaluation is to examine those materials for any bias they may contain. The rest of this information sheet will describe how to do just that.

What Is Bias?

Numerous studies have documented the fact that instructional materials often contain bias. Most of the studies have concentrated on bias against females and minority group members. However, instructional materials have also been criticized for containing bias against other groups. Among those groups are males, older people, handicapped people, and people at lower income levels.

The bias found in instructional materials usually takes two forms. The **presentation of certain groups of people in an unfavorable or stereotypical manner** is one form of bias. The following are examples of this form of bias:

- Blacks presented as always living in the inner city and being poor but "hip"
- Handicapped people presented as being continually dependent on others
- Older people presented as being either eccentric and grouchy or as "everybody's favorite grandparent"
- Males and females presented as workers in only those occupations traditional for their sex
- Traditional two-parent families shown as the only acceptable norm, preferably with the father employed and the mother a homemaker

One type of this kind of stereotyping involves inserting the sex of a person in front of his/her occupational title when that job is usually held by someone of the opposite sex. The terms *male nurse* and *woman doctor,* for example, seem to indicate that a male who is a nurse or a woman who is a doctor is somehow different from or less than a real nurse or doctor.

Another form that bias frequently takes in instructional materials is the **avoidance of any mention of certain groups of people.** These people simply do not appear in illustrations, nor are they portrayed in case studies or in hypothetical examples. While some progress has been made in getting more females and minority group members into illustrations, older or handicapped people are still rarely depicted.

Sometimes the bias in instructional materials involves more than the kinds of characters depicted. Case studies and hypothetical examples, for instance, may consistently describe situations that most often apply only to certain groups of students. The situations might be exclusively middle class and refer to such activities as balancing a checkbook, going on vacation, and owning a home.

There is nothing wrong with materials that sometimes incorporate these examples. However, materials that always use such examples may have little relevance to the lives of economically disadvantaged students.

Some materials are quite consistent about which groups and situations they mention and which they don't. Consequently, the materials seem to exhibit a particular "point of view." That is, the kinds of language, examples, characters, and illustrations used and not used in such materials make it obvious for whom the materials were intended. The materials address only those students, to the exclusion of all others.

Biased materials may also use language that avoids mentioning the female members of the population. Many English words used as generics (referring to both males and females) are masculine words—for example, *mankind, fireman,* and *he.* The use of these words discourages students from thinking of females as well as males.

This fact is becoming increasingly clear as more research is done on these so-called generic terms. Several studies have investigated how students at various ages (including adult students) interpret masculine terms used as generics. The results indicate that male-oriented generic words are **not generic.** Students tend to exclude females in their interpretation of masculine terms used as generics. Truly generic terms (such as *fire fighters*) are more often interpreted by students as referring to **both** males and females.

The two forms that bias takes in instructional materials can appear in all kinds of materials. People may be ignored or presented unfavorably or stereotypically in virtually any materials that portray people in words or images:

- Textbooks, workbooks, handbooks, pamphlets, and periodicals
- Newspaper clippings
- Posters and signs
- Films, filmstrips, film loops, slide shows, and videotapes
- Audiotapes and records
- Transparencies
- Photographs and other illustrations

Why Is Bias Bad?

Biased materials are believed to be undesirable for **all** of your students for three reasons. First, for the sake of simple fairness, **all students deserve to be treated as equally as possible in your class.** They deserve to work with materials in which they can see and hear about real or fictional people like themselves and real and fictional situations like those they have experienced. Each student deserves to "own" that part of the school experience as much as the next student. Materials that provide that sense of ownership can help each student use his/her out-of-school experience profitably—to synthesize prior experience into a meaningful present and future.

Second, **biased materials do not reflect the real world.** It may be true, for instance, that only about 6 percent of the country's fire fighters are female. However, the women who comprise that 6 percent do exist. A textbook whose pictures of fire fighters do not include at least some females is not reflecting the real-world situation. Black people make up about 12 percent of America's population, yet they rarely figure in instructional materials in proportions that great.

Some handicapped people are indeed impaired severely enough to have to depend on others, but many handicapped individuals live quite independently. Your materials should reflect that. Most older Americans do not simply "retire to the rocking chair" once they get older. They continue to actively conduct their own lives and participate in the lives of others. But your students might be convinced otherwise if their materials don't portray the real-life activities of older Americans.

The point here is that, just as you would not use materials that are inaccurate regarding course content, you should not use materials that are inaccurate concerning the nature of the people who make up our world.

Third, **materials that are biased do nothing to enhance the self-esteem of the students using them.** They may, in fact, diminish that self-esteem. The self-esteem of a Hispanic student may be lowered if he or she must use materials that either ignore the existence of Hispanic people or that characterize Hispanic people as having, for example, low work aspirations. To the extent that these materials teach (falsely) that Hispanic people do have low work aspirations, the Hispanic student's own work aspirations may be lowered. The same point may be made about biased materials and their effect on a student with any other exceptional need.

It is important for you to realize that these three reasons that biased materials are undesirable are not trivial. They have important implications for how well your students, especially students with exceptional needs, learn in your class. It has been estimated that 90 percent of classroom time is spent working with instructional materials. If that's the case, materials that shortchange your students should result in less than effective teaching. Providing unbiased materials, therefore, is not merely "a nice thing to do if you have the time." It is an important part of your teaching responsibility.

How Do You Evaluate Materials for Bias?

Once you can recognize biased materials and how they may be detrimental to your students, how do you go about providing unbiased materials? Your first step as a teacher is to check your own student instructional materials to see **whether** they are biased and, if so, **in what ways.**

It is important to examine all your student instructional materials, even those with which you are very familiar. Checking for bias requires that you take a fresh look at old materials. Don't forget to examine any films, slide/tape presentations, videotapes, audiotapes, and transparencies, as well as the printed materials you use. You will also need to examine the library or learning resource center materials that you may assign to students.

The several examples of bias that you have read in this information sheet represent only part of the total "bias picture." Sample 1 gives a more complete list of examples of bias you should look for as you examine your materials.

SAMPLE 1

EXAMPLES OF BIAS

Bias Against Any Group

- No mention made of contribution to all facets of American life made by members of a particular group (This form of bias often occurs in the historical or biographical sections of a text or other materials.)
- Underrepresentation of members of a particular group in examples, case studies, and illustrations
- Tokenism—a **minimal** attempt to include members of a particular group (e.g., including a black in an illustration only as long as he/she is heavily outnumbered by whites)
- Illustrations of human beings that show only attractive people (invariably trim, good looking, and well dressed) rather than people who display the full range of physiques, facial features, and clothing styles that characterize real people
- Evidence (in language, examples, and situations) that the materials have a point of view that excludes certain types of students
- "Humor" that belittles

Bias Against Racial/Ethnic Minorities

- Words or pictures that invariably portray minority group members in subordinate roles (e.g., secretary rather than executive, assembly-line worker rather than supervisor, committee member rather than chairperson, tenant rather than apartment owner)
- Assumption that all minority group members live in urban settings or migrant camps or on reservations
- Black and Hispanic people portrayed as having low work and educational aspirations
- Native Americans always depicted as having a Plains Indian heritage (complete with war bonnets and teepees) rather than having sprung from any other of the diversified Indian cultures
- All Hispanic Americans portrayed as being handicapped by limited English proficiency
- Blacks, Puerto Rican Americans, Mexican Americans, and Italian Americans depicted as social misfits, with close ties to juvenile delinquency and crime
- Oriental Americans portrayed as inscrutable, quiet, studious, and unathletic
- Jews depicted as aspiring only to be professionals (e.g., doctors, lawyers)
- Jews described as mercenary, unathletic, and bookish

Bias Against Males and Females

- Words or pictures that attribute specific traits to people, depending on their sex (e.g., males always strong, active, and brave; females always "ladylike," followers rather than leaders, and overly emotional)
- Assumption that there are men's jobs and women's jobs (e.g., working men and women portrayed only in jobs traditional for their sex)
- Assumption that the norm is working men, with perhaps a section of the material devoted to discussion of working women, rather than information on working women being infused throughout the material
- Situations described by words or pictures that invariably portray women and men in traditional sex roles on or off the job (e.g., females doing housework, males never doing any housework except repairing broken household things; female workers serving coffee to executives; female workers taking orders from male workers; females preoccupied with their appearance)
- Mention of females' appearance, marital status, and/or whether they are parents, with no mention of these characteristics for males (e.g., "Joan, a pretty, young mother of three, was the first technician to be hired. Her co-worker, Harry, joined the company three weeks later.")
- Use of sexist language, (e.g., words such as *mankind, salesman, repairman, foreman, man-sized job, one-man show, manpower,* and pronouns such as *he* used in instances where they could refer to both males and females)
- Stereotypical style of drawings (e.g., those of males invariably done in strong, bold strokes and colors; light strokes and pale colors used in drawings of females)

Bias Against Handicapped People

- Assumption that all handicapped people are quite dependent on others—always the helped but never the helpers

- No reflection of the fact that many handicapped people live rich, full lives that may involve work and recreational activities, marriage, family life, and parenting
- No reflection of the fact that handicapped people are employed in a wide variety of jobs and at various levels of those jobs, including supervisory positions

Bias Against Economically Disadvantaged People

- Activities represented that are invariably middle class
- Assumption that two-parent families are the ideal—preferably ones that consist of only two children, a working father, and a mother who works only in the home
- Subtle message that, to have friends, be worthwhile, and live a happy life, one must be a member of the middle class, well dressed, and attractive and have a high-paying, high-status job
- Assumption that economically disadvantaged people have low work and educational aspirations

Bias Against Older Americans

- Elderly people portrayed either as eccentric and grouchy or as "everybody's favorite grandparent"
- Elderly people portrayed as people whose "day is over," who live lonely and isolated lives, and who are inactive and in poor health

It's a good idea to make up copies of a bias checklist, such as that shown in sample 2, before you start examining materials for bias. By using such a checklist, you'll be able to keep track of what you are finding out about your materials. You should save your completed checklists for future reference. That way you won't have to check the same materials for bias more than once, and you will be able to share with others what you've discovered about your materials.

The checklist shown in sample 2 lists bias problems you should be looking for. It is laid out so that you can indicate, by a check mark, the group of people toward whom the material is biased, and in what particular way it is biased. For instance, consider Problem 1 on the checklist. If you find that a film you are examining uses sexist language, you would place a check mark next to Problem 1, in the column labeled "Males & Females." In the column labeled "Description & Location," you could then note examples of the sexist language and the parts of the film in which they occur.

You can leave the "Resolution" column blank during your examination. It can be filled in later when you decide what to do to resolve any bias problems. What you put in the "Resolution" column will help you determine whether biased parts of the film can be adapted, use of the film can be adapted, or the film will have to be replaced.

Obviously, not all problems on the bias checklist will be relevant to every piece of material that you examine. For instance, some materials do not include any information on the contributions of **any** groups to a particular field. In that case, you shouldn't consider that material biased when it doesn't include the contributions of the members of particular racial/ethnic groups.

Often you will have to rely on good judgment rather than on a simple formula in order to tell whether materials are biased. The important things to remember are **balance** and **fairness.** For instance, it is not necessary that each of your audiotapes uses both a female voice and a male voice as narrators. However, across all your audio presentations, there should be a mixture of male and female narrators. Otherwise, the tapes can contribute to the stereotype of "male as authority figure."

Likewise, you should not worry if your materials **sometimes** show racial/ethnic minority group members in potentially stereotypical settings: urban settings, migrant camps, and reservations. However, they must also show minority group members who live in a variety of other places.

Similarly, some women may be depicted as homemakers in your materials. This is not necessarily bias, as long as those same materials reflect the fact that at least half the women in this country are employed outside the home. Not every working woman in your materials must be portrayed as a supervisor in order to destroy the stereotype that women take orders rather than give them. But, some women are supervisors and your materials should reflect that.

There is no need for materials to idealize groups of people, either, in an attempt to seem unbiased. Just as not every older American is grumpy and senile, neither are they (or anybody else, for that matter) always cheerful and wise. No group of people is all one way or the other. Your materials should reflect the full range of personalities, shortcomings, and abilities that all kinds of people have. Again, the key is that presentations should be balanced and fair.

SAMPLE 2

BIAS CHECKLIST

Program or Course Name or Number _____

Title of Material _____

Type of Material (e.g., textbook, film) _____

Problems	Groups: Racial/Ethnic	Males or Females	Handicapped	Economically Disadvantaged	Older Americans	Description & Location	Resolution
1. Offensive language							
2. Underrepresentation in examples and case studies (including tokenism)							
3. Underrepresentation in illustrations (including tokenism)							
4. Stereotypic style of illustrations							
5. No mention of contributions made by a particular group							
6. Stereotypic assumptions about kinds and levels of jobs held							
7. Stereotypic assumptions about interests, abilities, and work and educational aspirations							
8. Stereotypic assumptions about physical appearance							
9. Stereotypic assumptions about life-styles							
10. Stereotypic assumptions about activities on and off the job							
11. Consistent portrayal of situations/activities that are relevant to the lives of students at only middle and upper economic levels							
12. "Humor" that belittles							
13. Evidence that the material has a "point of view," assuming a certain type of user.							

One last comment: Do not despair if you find that the materials you have are quite biased, particularly in the area of underrepresentation. In your effort to provide appropriate materials, you will have several options concerning what to do about biased materials. Only one of those options is to abandon use of the materials. Other parts of this module describe how to adapt materials that would otherwise be unsuitable and how to select and develop materials to replace those that can't be made suitable.

Obviously, you would not have to spend time adapting, selecting, and developing materials to replace biased ones if developers were producing unbiased materials in the first place. It is ultimately to your advantage, therefore, to let publishers and other developers know when you find that their materials are biased. In addition, whenever you serve on a materials selection committee in your school or college, you will have the chance to recommend the purchase of only unbiased materials. Actions such as these will eventually help make your job of providing appropriate instructional materials an easier one.

People who are experienced in evaluating materials for bias are good sources of information about that task. In particular, they can advise you on how to apply **good judgment** in determining whether your materials make fair and balanced presentations. Consequently, you may wish to interview someone with experience in evaluating materials for bias, such as your state's sex equity coordinator or someone in charge of evaluating materials for a school or college.

Bias can occur in materials of almost any type, including those that are audiovisual. In order to gain skill in checking audiovisual materials for bias, you may want to evaluate a videotape, film, filmstrip, audiotape, or slide presentation. You may also wish to ask a peer who is also completing this module to make a separate evaluation of the same material.

If you and a peer evaluated audiovisual instructional materials for bias, you may compare evaluations and discuss any points on which your evaluations differed.

Activity 5

The following is a chapter from a hypothetical textbook entitled *Today's Construction.* Using the Bias Checklist, p. 19, review this chapter and carefully evaluate it for bias. You may wish to remove the checklist from the module to make it easier to use.

TEXTBOOK CHAPTER

Chapter 1: Arranging to Build

This book is about construction. As you use this book, you'll learn the basic construction methods that are common to all construction projects. These basic methods are used on all construction projects, no matter what is being built. However, most often in this book we'll be talking about housing construction, since owning a home of your own is everyone's dream.

Most of you will someday own your own home, and many of you will have that home built specifically for you and your family. While you probably won't do all the work involved in building your home, you'll still need to know how a house gets built. Then you'll be able to oversee those who actually do the work on your house.

This book will prepare you for that task. In addition, this book will give you a very good idea of the many careers available in the construction industry. Who knows? Some of you may decide you want to make your living in the construction industry.

Once you decide you want to build a house, you'll find out right away that even the beginning steps are not one-man jobs. You'll need the help of several workers right away. You'll probably start by hiring an **architect** to help you decide whether it is feasible for you to build the kind of house you want. Your architect will have been trained at a college or university and will

be prepared to use all his training and experience to plan for you exactly the kind of house you want and can afford.

The architect will need to know exactly what kind of house you have in mind. He'll ask you such questions as the following:

- How much do you have available to spend on the house (both cash and what you can borrow from a lending institution)?
- How many children do you have?
- How large a kitchen will your wife need?
- What do you want the outside of the house to look like?

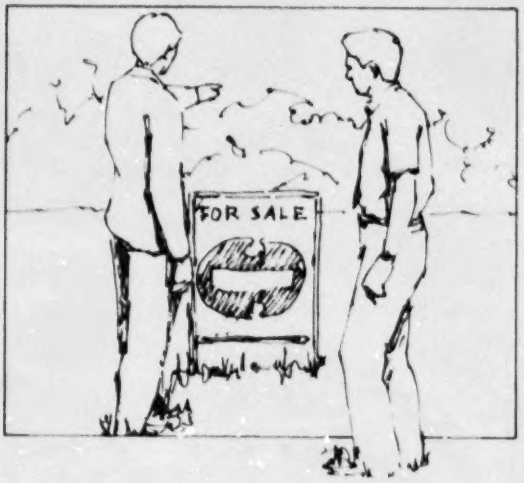
These are only a few of the questions that the architect will ask in order to help you plan a house that will serve the needs of you and your family and will still be a house you can afford.

For instance, your answers to all his questions may show the architect that you want a more expensive house than you can afford. He'll work with you and your family to help you decide what features you could do without in order to decrease the cost of your house.

This process usually involves considerable haggling between husband and wife. During this process, you should try to remember that it is a woman's prerogative to change her mind. By cooperating with each other and working closely with your architect, you'll

probably be able to plan a house that you can afford and that also contains the features most important to you and your family.

Once you have a fairly detailed plan of your house, you'll probably need the help of a **real estate agent** in order to find the right land (the site) on which to build that house. A real estate agent has to have considerable training, although that training does not have to be taken at a college or university. He also has to be licensed by the state since the government wants to make sure that he is knowledgeable about zoning laws and other legalities regarding the sale of property.



Having looked at the plans that you and the architect have drawn up, the real estate agent will have a pretty good idea of what kind of land you need and want. He'll have to try to accommodate the wishes of both you and your wife.

For instance, he may have to deal with the fact that your wife is in love with the idea of a wooded lot, while your chief concern is finding a site you can afford. The real estate agent will tell you about sites that are available for sale and will arrange for you to visit those you are most interested in. He may also help you arrange to buy the one you want.

There are many factors to consider when you are deciding which site to buy. Among the questions you should ask yourself about each prospective site are the following:

- Will the kind and size of house you plan to build fit in well among the natural and man-made features on and near the site?
- Is the kind and size of house you want to build on the site allowed by zoning and building code regulations?
- Is police and fire protection near enough? That is, would policemen and firemen be able to reach you in a short time if you called them for help? (This question is not merely one of personal safety. The insurance rates on your house, for instance, may be affected by how far away your house is from a fire station.)
- What are the crime statistics for the area? (Many low-income neighborhoods have such a terrible incidence of burglary that insurance companies refuse to provide theft insurance on property there.)
- Is there adequate street lighting so that your wife would not be afraid to walk alone near your home after dark?
- Will the water supply, sewage disposal, electrical service, gas service, telephone service, and storm drainage be adequate?
- Will trash and snow removal be adequate?
- Do you like the schools your children will attend if you build on this site?
- Will you be close enough to your place of employment so that driving to and from work will not take too much of your time?
- Will you be close enough to your bank and church, a hospital, and stores where your wife will want to shop?
- Will the kinds of recreational facilities that your family uses frequently be available? For instance, are there baseball diamonds near enough for your son to use? Is there a public library nearby for your daughter to use?
- What is the nature of the people who live in the neighborhood? For instance, will your neighbors be mostly couples about your age or can this be considered a "senior citizens'" neighborhood?

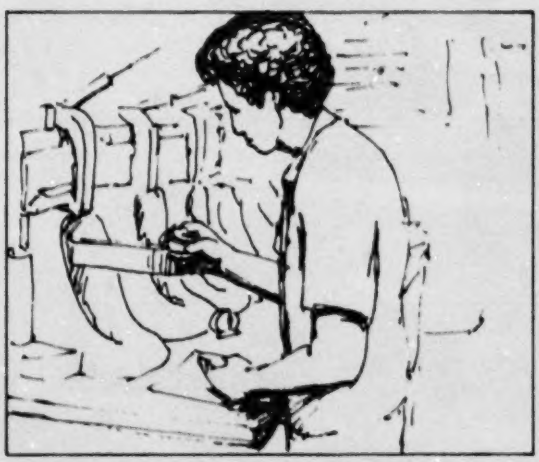
All of these factors must be taken into account as you select the site on which to build your house. If you were planning to construct a building other than a house, you would probably delete some of the factors listed above and add others. In other words, when you select a site, you will be considering factors related to the purpose of the structure you are building and to the needs of the people who will use that structure.

Once you have selected a likely site, your architect will help you hire two more workers to help you find out whether you should actually buy the land: a registered land surveyor and a soils engineer.

You will hire a **registered land surveyor** to measure the site and to make a map of the site. The site needs to be measured so that you'll know the exact boundaries of the property. A map needs to be made so you and the architect can use it to decide how much land preparation will be needed before you can build. If too much land preparation is needed, it may make the entire project too costly. The builder you will eventually hire if you buy this land will also need the registered land surveyor's map.

In most states, only a registered land surveyor can legally survey boundaries. Most states require that registered land surveyors pass the state's written exam, have a college degree, and have a certain amount of field work.

You will hire a **soils engineer** who has a college or university degree in civil engineering, to evaluate the soil on the site you have selected. A soil evaluation can tell you whether the site (or part of the site) can support the size and kind of house you plan to build. It will also help you decide what kind of foundation the house will need on that particular site. The soils engineer plans the program of evaluation.



The men who help him take samples of the soil from various parts of the site, perform tests on the soil samples, and describe their findings in written form. These technicians may need as little as two years of high school.

Once you know the exact boundaries of the site you have selected and know that its soil is compatible with the house you plan to build, you'll need the help of an **attorney.** His work will include checking and/or preparing the legal papers involved in the sale of this property, including all contract agreements. In order to practice as an attorney, he must have graduated from an accredited law school and have passed the state's bar examination.

It's quite likely that you will not have all the money you need both to buy the site and to pay for the construction of your new home. Therefore, unless you can borrow from a rich uncle or a wealthy friend, you're going to need the help of yet another person: a **loan officer** at a lending institution.

Lending institutions are such places as banks, savings and loan associations, and credit unions. These institutions seldom lend money for land, so you should expect to have to pay cash for the site on which you'll build. A loan officer at any of these institutions can tell you how much money the bank will lend you to pay for the construction of your new house. He'll also explain the "terms" of the loan—how much interest you'll be paying on the loan, how soon you'll be expected to pay the money back, and what your monthly payment will be.

By following the steps described in this chapter, about half of your housing construction project will be over at the time you buy the site and arrange for financing the construction costs. What remains is for a builder and the many kinds of workers he supervises to make your dream house a reality.

The workers involved in that construction have a wide variety of tasks to perform. The remaining chapters in this book will tell you about every step in housing construction, from preparing the land on which to build to putting the last handle on the kitchen cabinets. You'll get to know very well the men, machines, and tools that will be responsible for building your house.

19

BIAS CHECKLIST

Program or Course Name or Number _____

Title of Material _____

Type of Material (e.g., textbook, film) _____

Problems	Groups: Racial/Ethnic	Males or Females	Handicapped	Economically Disadvantaged	Older Americans	Description & Location
1. Offensive language						
2. Underrepresentation in examples and case studies (including tokenism)						
3. Underrepresentation in illustrations (including tokenism)						
4. Stereotypic **style** of illustrations						
5. No mention of contributions made by a particular group						
6. Stereotypic assumptions about kinds and levels of jobs held						
7. Stereotypic assumptions about interests, abilities, and work and educational aspirations						
8. Stereotypic assumptions about physical appearance						
9. Stereotypic assumptions about life-styles						

Problems	Racial/Ethnic	Males or Females	Handicapped	Economically Disadvantaged	Older Americans	Description & Location
10. Stereotypic assumptions about activities on and off the job						
11. Consistent portrayal of situations/activities that are relevant to the lives of students at only middle and upper economic levels						
12. "Humor" that belittles						
13. Evidence that the material has a "point of view," assuming a certain type of user						

Compare your completed checklist with the model checklist given below. Your responses need not exactly duplicate the model responses; however, you should have covered the same **major** points.

MODEL BIAS CHECKLIST

Program or Course Name or Number _____

Title of Materials Today's Construction

Type of Material (e.g., textbook, film) textbook

Problems	Groups: Racial/Ethnic	Males or Females	Handicapped	Economically Disadvantaged	Older Americans	Description & Location
1. Offensive language		✓				Page 16: one-man job. Page 17: man-made, policeman, fireman Male pronouns are used as generics throughout. The word *men* is used as a generic throughout.
2. Underrepresentation in examples and case studies (including tokenism)						
3. Underrepresentation in illustrations (including tokenism)	✓	✓	✓		✓	The ratio of majority to minority figures appears to be 11 to 1 in illustrations. Males outnumber females 3 to 1. No handicapped persons appear. No older Americans appear.
4. Stereotypic **style** of illustrations						
5. No mention of contributions made by a particular group						
6. Stereotypic assumptions about kinds and levels of jobs held	✓	✓	✓		✓	The only black pictured has the lowest level job discussed. Only males shown/discussed as workers. No handicapped, females, or older Americans shown/discussed as workers.
7. Stereotypic assumptions about interests, abilities, and work and educational aspirations		✓				Page 16: The kitchen belongs to wife. Page 17: The "irrational" wife is concerned about appearance of lot; the "rational" husband is concerned about finances. Page 17: The wife is assumed to be frightened at night. Page 17: The son is involved in an action sport; the daughter stereotypically likes a quiet activity (reading).
8. Stereotypic assumptions about physical appearance						

Problems	Groups: Racial/Ethnic	Males or Females	Handicapped	Economically Disadvantaged	Older Americans	Description & Location
9. Stereotypic assumptions about life-styles		✓		✓		Page 16: The kitchen belongs to the wife. Page 17: Low-income neighborhoods are stereotypically tied to crime. Page 17: Shopping is the duty/interest of the wife.
10. Stereotypic assumptions about activities on and off the job		✓				Page 16: Illustration: Wife is shown in serving role.
11. Consistent portrayal of situation/activities that are relevant to the lives of students at only middle and upper economic levels				✓		The situation that constitutes the whole chapter is one that concerns only one segment of the population—those who can afford to build a house.
12. "Humor" that belittles		✓				Page 16: "It's a woman's prerogative to change her mind."
13. Evidence that the material has a "point of view," assuming a certain type of user	✓	✓		✓	✓	Throughout, it assumes that the reader is male, is (or will have) children, and has (or will have) enough money to build a house. Page 16: It assumes that "owning a house is everyone's dream," certainly a middle-class ideal. Page 17: It assumes that the student is a church-goer. (What about those whose house of worship is not a church or those who do not worship at all?) Page 17: It assumes that the student is not a "senior citizen."

Level of Performance: Your completed checklist should have covered the same **major** points as the model checklist. If you missed some points or have questions about any additional points you made, review the material in the information sheet, Checking for Bias, pp. 9–15, or check with your resource person if necessary.

Learning Experience II

OVERVIEW

After completing the required reading, evaluate selected instructional materials to determine whether they match the capabilities of the student described in a given profile.

You will be reading the information sheet, Matching Materials to Students' Capabilities, pp. 24–34.

You will be locating instructional materials and evaluating these materials to determine whether they match the capabilities of a given student with exceptional needs, using the Materials Worksheet, pp. 35–36, to guide and document your work.

Your competency in evaluating selected instructional materials to determine whether they match the capabilities of a given student will be evaluated by your resource person, using the Materials Worksheet Checklist, pp. 37–38.

Activity 1

For information on specific techniques to use in evaluating your instructional materials to find out whether they match the capabilities of students with exceptional needs, read the following information sheet.

MATCHING MATERIALS TO STUDENTS' CAPABILITIES

Evaluating the materials you have on hand or have ready access to is the first step in providing materials for your students. In addition to checking those materials for bias, you'll need to further evaluate the materials you intend to use with students with exceptional needs. During this part of the evaluation, you'll be finding out whether those materials match the capabilities of the students who will use them.

The importance of providing materials that match the capabilities of your students cannot be overemphasized. While biased materials may shortchange students with exceptional needs, materials that do not fit the capabilities of those students may actually guarantee the failure of those students in your class. This is true because the capabilities of students with exceptional needs may be significantly different from the mythical "average" student for whom most materials have been developed.

You will find that the word *capabilities* is used very broadly in this module. In this term, we are including two areas that you might find treated separately elsewhere. First, the materials must match **what the student needs to learn in your program.** The materials must teach what the student doesn't yet know or isn't yet capable of doing. Obviously, this doesn't mean you must have materials that teach everything a student doesn't know—just those areas that may be reasonably taught in your program. Second, the materials must match **the way in which the student needs to be taught.** That is, the materials must present information in the way the student is most capable of learning it.

Matching Materials to What Students Need to Learn

Before you can tell whether your materials teach what students need to learn in your program or course, you need to know what each student needs to learn. The instructional plans you've made for each student with exceptional needs will give you that information.[1] For handicapped students, those plans may be Individualized Education Programs (IEPs). For other students with exceptional needs, you may have prepared individual training plans (ITPs) or other, less formal instructional plans. Instructional plans such as these should guide your attempts to match materials to what each exceptional student needs to learn.

1. To gain skill in planning instruction for students with exceptional needs, you may wish to refer to Module L-3, *Plan Instruction for Exceptional Students.*

Suppose, for instance, that two of your students are considered exceptional because they are intellectually gifted. There is every reason to expect that these students may quickly grasp the basics and be ready to move on to other things well before the rest of your class is ready. Your instructional plans should have anticipated that.

You'll need instructional **materials that challenge** these gifted students—materials that do not merely present "more and harder" examples of the information presented to your other students. The appropriate materials for such students would show new applications of the basics. They would encourage your gifted students to engage in high-order intellectual activities. For instance, they might help them evaluate or synthesize information rather than simply recall it.

It is no doubt true that you should provide all your students with materials that encourage higher-order intellectual activities. But providing them for your gifted students is especially important because their intellectual capabilities are significantly different from those of the mythical average student for whom most materials are designed.

The experience and maturity of some mid-life career changers, older Americans, and the technologically displaced may enable them to move ahead rapidly, too. Consequently, they may require materials

with many of the same characteristics as those you provide your gifted students.

In addition, it is particularly important that your materials for both gifted students and those enrolled for retraining reflect those students' objectives for enrolling in your program. Both groups of students may have objectives that differ from "the norm."

For instance, a gifted student may be taking a carpentry course with no intention of entering the carpentry trade. He/she may instead plan to become a theatrical set designer and believe a knowledge of carpentry skills will help in that effort. At least some of the instructional materials needed for this student should teach skills and knowledge directly related to set construction.

To match students' needs, additional **basic materials** may also be required. Students enrolled in programs nontraditional for their sex sometimes enter programs lacking some of the basic occupational skills or knowledge that other students seem to have learned "just by living." For that reason, you may well need to provide them with materials that teach simple, basic occupational skills and knowledge.

Mentally retarded students, sensory and physically impaired students, and students with limited English proficiency may also need such materials. The lifestyles of some students may have kept them isolated from experiences that would have taught them this basic information. Some gifted students, too, may not have been exposed to basic occupational knowledge and skills because they may have concentrated on academic activities. Although they may progress very rapidly, they may need to start with materials that teach the basics.

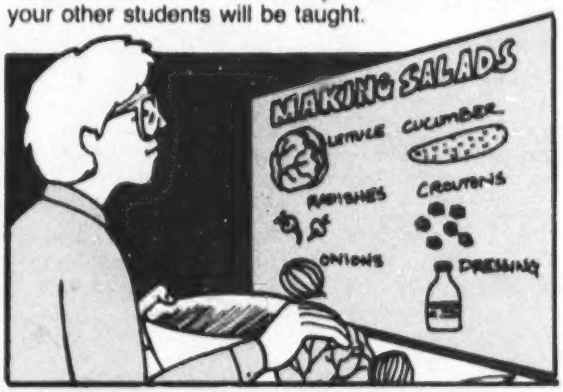
Materials must also provide appropriate **work role models** in order to match a particular student's exceptional needs. Perhaps an economically disadvantaged student's life so far has not included role models who have been employed steadily enough to make much of an economic difference to themselves and their families. This student may be less acquainted with the value of work than your other students are. He/she may also think that others, who are financially better off, inherited their money or somehow cheated their way to affluence.

Such a student may, therefore, not believe that he/she will actually be employed in the job for which you are preparing him/her. In addition, he or she may not realize the difference that holding a steady job can make in one's independence, dignity, and life-style. Materials appropriate for this student may include those that teach the dignity and value of work and the virtues of working steadily.

Some students with exceptional needs will need materials that require **math and reading skills** that are at the same levels they will find on the job. This is really nothing new, since most vocational-technical teachers attempt, insofar as possible, to make their entire programs reflect real job situations.

However, such materials are particularly important to students who do not possess good math and reading skills. They need to know what levels of reading and math skills they will be expected to possess once they are employed in the job for which you're preparing them. Such knowledge should help convince them of the need either to remedy their reading/math problems or to prepare for a job that requires lower reading or math skills. Don't forget, however, that some students may not be able to use such materials at the beginning of your program. But, with proper remediation, they should be able, by the end of your program, to use materials that require math and reading skills that match what they'll need on the job.[2]

You also may need to provide certain materials for sensory impaired, physically impaired, or mentally retarded students because of **specific plans in their IEPs.** Depending on the student's handicap and its severity, an IEP may prescribe that the student be taught something different from what you will teach your other students. What that student is to be taught will relate to, but not necessarily be the same as, what your other students will be taught.



For instance, a mentally retarded student may not be capable of learning all of the food service skills usually taught in the program. He/she may be capable of learning only one task very well—perhaps salad-making. Skills relating to the making of salads are, therefore, what the IEP says the student shall be taught in the program. The instructional materials commonly used to teach students the other food service skills will obviously not all be appropriate for this student. The instructor may, however, need more materials dealing with salad-making for this student than he/she usually uses. As with the other students mentioned in the previous examples, this mentally retarded student needs materials that match what he/she needs to learn.

2. To gain skill in assisting students in improving their basic academic skills, you may wish to refer to modules in the M category. Modules M-1, M-2, and M-5, which deal with basic reading skills, technical reading skills, and math skills, may be of particular interest.

Matching Materials to How Students Need to Learn

Your materials should also present information in the way each student is most capable of learning and remembering it. How do you know the best way of presenting information to each student? You'll determine which way is best by using your professional judgment as you consider the results of your diagnosis of students and your instructional planning efforts. That professional judgment should be governed by the guidelines that follow.

How a student best learns and remembers information depends on several student characteristics, including the student's learning style. Learning style is a complex area and one that is not yet thoroughly understood. A number of different theorists have developed "models" of learning style—different ways of looking at how individuals learn.

Learning style can include cognitive style, physical environment, emotional and sociological factors, and other factors as well. The following are four aspects of learning style that are especially important to consider in providing appropriate materials for students with exceptional needs.

Consider the channel of communication through which the student can best acquire and retain information. The channels of communication are considered to be a person's five senses. However, most information presented in school situations requires the use of only three channels: visual (sight), auditory (hearing), and tactile (touch).

Some students can learn well through any one of these three channels. Others learn better when information is presented through a particular channel or combination of channels. Such a student may, for instance, learn more from listening to an audiotaped version of a textbook chapter than from reading the same chapter in the book itself.

Consider the student's ability to focus and sustain attention. Some students have little trouble in identifying the important points of information presented to them. But others are very distracted by extraneous stimuli, such as the design of a page of printed material or the amount of information presented on the page.

Such students become confused about what it is they are expected to learn. They cannot seem to filter out what is unimportant in order to be able to pay attention to what is important. All the information they receive may seem of equal importance to them.

Consider the student's desire or need to receive instruction in particular grouping arrangements. Many students **prefer** one grouping arrangement or another, such as working independently, with another student, one-to-one with the teacher, in a small group, or in a large group. Others may actually **require** a particular grouping arrangement. That is, their performance in your class may depend upon their working in a certain grouping arrangement.

Consider the types and schedule of reinforcement that strengthen the student's learning. Certain reinforcement techniques can strengthen a student's learning. All these techniques involve repetition and review, but some work better than others with particular students. Among these techniques are the use of audiotape or videotape replays, summaries and reviews, programmed materials, and opportunities to apply new skills creatively. Students also seem to vary in the frequency with which they require reinforcement.

In addition to considering learning style, you will need to consider other student characteristics, such as the following, in providing appropriate materials for each student with exceptional needs:

- Student's proficiency in English
- Student's skill in reading
- How fast (and at what level of complexity) the student can receive information
- What kind of response to materials the student is physically capable of making

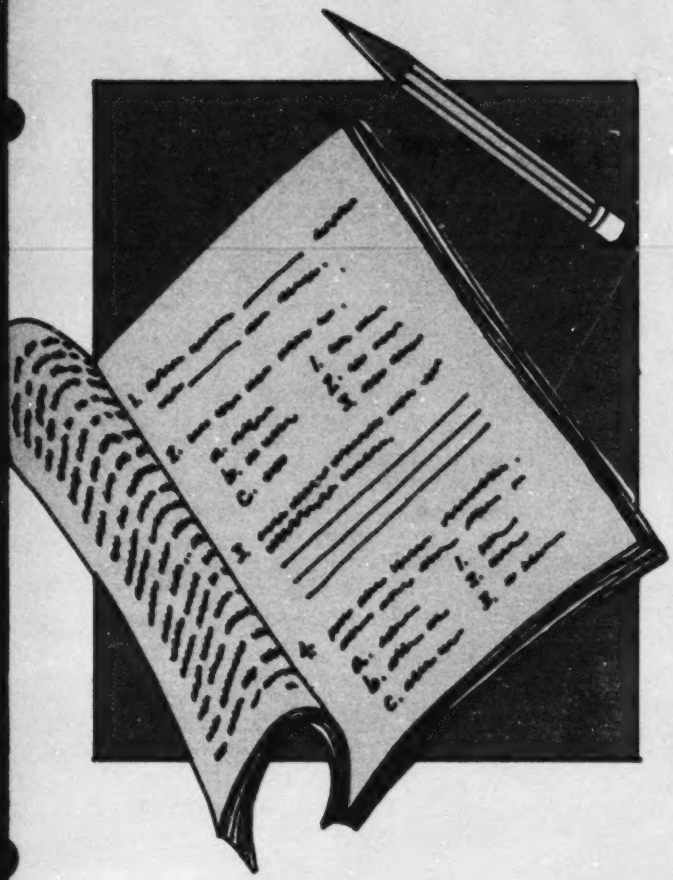
A few examples should make it obvious why these characteristics are relevant to your choice of materials for students with exceptional needs. A Vietnamese student who can't understand rapidly spoken English will not learn much from an audiotape in which the narrator or characters speak quickly. No matter how capable that student is of learning what the audiotape teaches, he/she won't be able to learn it from that material.

The same situation may exist when a student, whose native language is English but who has poor reading skills, tries to use printed materials. If the materials are written at a reading level considerably higher than that which the student can handle, the student won't learn much.

Students vary in terms of the complexity and amount of information they can handle. Some students can handle materials that present large amounts of complex information in a complex manner. Others, particularly mentally retarded students, may be able to learn complex information only if it is presented in small, uncomplicated steps.

Some orthopedically impaired students—those who can't use a pencil in the conventional way—may not be able to respond in writing to questions in a workbook or on a written test. The space provided for their responses may not be large enough to accommodate their poor motor skills.

A student may or may not have control over the characteristics discussed in this section. Obviously,



students who are sensory impaired have no control over the fact that some channels of communication are of little or no use to them. Other students, however, may have more options concerning what channels they can use. They may merely **prefer** a particular channel.

Nonetheless, you must be very careful not to assume that student preferences are inconsequential. A student's preference for a channel of communication, for instance, may actually reflect the student's **need** to use that channel. Providing materials that match their needs and preferences may mean that students with exceptional needs will like your course rather than hate it and, more important, suceed rather than fail.

However, it is also important to realize that you do not always need to provide materials that exactly mirror all aspects of a student's learning style. By providing materials that match his/her learning style, you are trying to **accommodate** the student's learning style—assuming that the student's learning style cannot be changed or is not detrimental to the student's future performance on the job.

Students who are blind, for example, obviously need to receive information through the tactile or auditory channels. It would be impossible to change this aspect of their learning style. Furthermore, it is realistic to expect the student's future job supervisors and co-workers to accommodate the student's need to receive information through the channels open to him/her.

But what happens when you believe that some aspect of a student's learning style is actually detrimental to his/her performance in your class? Or, what if you know that that characteristic will be detrimental to his/her eventual performance on the job? In these cases, you need to help the student acquire a learning style that will serve him/her better in class or on the job.

For example, suppose a student with exceptional needs very much desires to work independently in your class. The student also seems to learn better by working independently. There may be no reason not to accommodate this preference. However, assume that you know that the student wants to work alone only because he/she lacks the social skills necessary to get along well with peers. And also assume that the job for which the student is preparing requires good social skills.

In that case, you should help this student by not always providing materials that allow him/her to work in his/her preferred grouping arrangement. By providing at least some materials that require the student to work with others, you will be giving him/her the opportunity to develop good social skills.

Not always, then, will you be providing materials that exactly mirror all aspects of your exceptional student's learning styles. But you should always take those learning styles into account as you provide materials.[3]

3. To gain skill in determining students' learning styles and addressing those styles in your instruction, you may wish to refer to Module C-30, *Provide for Students' Learning Styles.*

The Evaluation Process

As we have discussed, you will need to evaluate each of your instructional materials, using two criteria:

- Does it teach **what** the students need to learn?
- Does it teach **in the way** the students need to be taught?

In your evaluation of materials, however, don't forget that you can choose from among parts of materials as well as from among different materials. For example, a certain agricultural textbook may not be entirely appropriate for a particular student. However, the book's section on feeding young calves may be not only good but exactly what should be provided for that student.

In addition, don't worry if few materials entirely match the capabilities of your students. Many problems within materials can be overcome, and the fact that they exist in no way means that you can't use the materials. Identifying the problems through evaluation is the first step in overcoming them.

First in the evaluation process, you should **examine the materials you have on hand** to determine their appropriateness. Bear in mind that, for the most part, you will be examining each particular text or other material **just once**, bearing in mind the individual needs of **all** your students—both those with and those without exceptional needs. It would be time-consuming and inefficient to take just one student at a time and to review each of your materials against his or her needs alone.

You do not have to work alone in this evaluation effort. You can ask the help of others when their judgment is likely to be better than your own. For instance, a special education teacher can help you decide whether material you'd like to use with a mentally retarded student presents information in small-enough steps.

An English-as-a-Second-Language (ESL) teacher may be able to help you decide whether the vocabulary may be understood by a particular student who has limited English proficiency. Employers in your community could help you decide whether materials require the same level of reading and math skills as the student will find on the job.

If your examination of the materials you have on hand reveals that additional materials are needed, you should **widen your search.** At this point, you may be looking for materials to meet a specific student's exceptional needs. For example, your evaluation of your present materials may have revealed that you lack challenging materials for a particular gifted student. You must then locate materials to remedy this lack.

The materials you need may be available from your public, school, or college library/resource center or from another instructor. Don't forget to ask special education and ESL teachers for sources of materials. The publishers from whom you usually order materials may also be able to provide materials that teach what your students need to learn.

In addition, by contacting the sources listed in sample 3, you should be able to obtain materials or identify other sources of instructional materials. The information in sample 4 summarizes the kinds of materials you are likely to need for students with exceptional needs.

SAMPLE 3

AGENCIES AND ORGANIZATIONS SERVING EXCEPTIONAL STUDENTS

Vocational Education and Exceptional Students in General

The National Center for Research in Vocational Education
The Ohio State University
1960 Kenny Road
Columbus, OH 43210

U.S. Department of Education
Office of Vocational and Adult Education
Seventh and "D" Streets, S.W.
Washington, DC 20202

Mentally or Physically Handicapped

Alexander Graham Bell Association for the Deaf
3417 Volta Place, N.W.
Washington, DC 20007

American Association on Mental Deficiency
5201 Connecticut Avenue, N.W.
Washington, DC 20015

American Printing House for the Blind
1839 Frankfort Avenue
Louisville, KY 40206

The Council for Exceptional Children
1920 Association Drive
Reston, VA 22091

ERIC Clearinghouse for Handicapped and Gifted Children
1920 Association Drive
Reston, VA 22091

Junior National Association of the Deaf
Gallaudet College
Florida Avenue at 7th Street, N.E.
Washington, DC 20002

National Association for Retarded Citizens
2709 Avenue "E"
Arlington, TX 76011

National Center on Employment of the Handicapped
Human Resources Center
Albertson, NY 11507

President's Committee on Employment of the Handicapped
1111 Twentieth Street, N.W.
Washington, DC 20210

Science for the Visually Handicapped
919 Walnut Street, Eighth Floor
Philadelphia, PA 19107

U.S. Department of Education
Office of Special Education and Rehabilitation Services
Seventh and "D" Streets, S.W.
Washington, DC 20202

Students Enrolled for Retraining

American Association of Community and Junior Colleges
National Center for Higher Education
One Dupont Circle, N.W.
Washington, DC 20036

National Council on Aging
1828 "L" Street, N.W.
Washington, DC 20036

Gifted and Talented Students

The Council for Exceptional Children
1920 Association Drive
Reston, VA 22091

ERIC Clearinghouse for Handicapped and Gifted Children
1920 Association Drive
Reston, VA 22091

Students with Limited English Proficiency

National Clearinghouse for Bilingual Education
1500 Wilson Boulevard, Suite 802
Rosslyn, VA 22209

U.S. Department of Education
Office of Bilingual Education and Minority Language Affairs
400 Maryland Avenue, S.W.
Washington, DC 20202

Students Enrolled in Programs Nontraditional for Their Sex

The Resource Center on Sex Equity
Council of Chief State School Officers
400 North Capitol Street, N.W.
Washington, DC 20001

Rj Associates, Inc.
1018 Wilson Boulevard
Arlington, VA 22209

U.S. Department of Education
Office of Equal Opportunity
400 Maryland Avenue, S.W.
Washington, DC 20202

Women's Educational Equity Act Dissemination Center
Education Development Center (EDC)
55 Chapel Street
Newton, MA 02160

Women on Words and Images
P.O. Box 2163
Princeton, NJ 08540

Racial/Ethnic Minority Students

Asian American Studies Center
Box 24A43
Los Angeles, CA

Bureau of Indian Affairs
Office of Indian Education Programs
Indian Education Resource Center
Box 1788
Albuquerque, NM 87103

Center for Latin American Studies
319 Grinter Hall
University of Florida
Gainesville, FL 32611

Chicano Studies Center
University of California
405 Hillgard Avenue
Los Angeles, CA 90024

Indian Studies Center
1817 E. Baltimore Street
Baltimore, MD 21231

Migrant Educational Development Center
800 Brazos
Austin, TX 78701

National Association for the Advancement of Black Americans in Vocational Education
218 Lane Hall
Blacksburg, VA 24061

National Indian Training and Research Center
2121 S. Mill Avenue, Suite 204
Tempe, AZ 85212

Opportunities Industrialization Centers of America
Green and Coulter Streets
Philadelphia, PA 19144

Puerto Rican Research and Resource Center
1529 Connecticut Avenue, N.W.
Washington, DC 20036

U.S. Department of Education
Office of Equal Opportunity
400 Maryland Avenue, S.W.
Washington, DC 20202

Urban League
53 E. Fifty-second Street
New York, NY 10022

Economically Disadvantaged Students

Appalachia Educational Laboratory
P.O. Box 1348
Charleston, WV 25325

SAMPLE 4

MATERIALS STUDENTS ARE LIKELY TO NEED

Materials	Students Who Are Likely to Need Them	Comments
Materials that present information through the channels your students prefer or require	Any student with exceptional needs, particularly the sensory impaired	For students who prefer one channel or the other, you may merely emphasize use of the preferred channel. But it is imperative to use the required channels for sensory impaired students. You'll need audiotaped, large-print, or braille versions of written materials for your visually handicapped students. Mock-ups, models, and real objects should be useful to these (as well as other) students. Hearing-impaired students will need visual versions of materials that use the auditory channel. You can use audiovisual materials with sensory impaired students, depending on the materials themselves. For instance, if the audio portion of a film conveys sufficient information alone, your visually impaired students may benefit from the film even though they can't see it. Your hearing impaired students would also benefit from the film as long as the visual portion conveys sufficient information or the film is captioned.
Materials that provide adequate space for written student responses	Orthopedically handicapped students who can't use a pencil in the conventional way; students with impaired vision who are able to read large print	
Written materials with a reading level that students can handle	All students with exceptional needs, particularly those with reading problems; students who are likely to need materials that are written at a lower reading level are sensory impaired and mentally retarded students, economically disadvantaged students, and students with limited English proficiency	It is important that materials written at a low reading level do not "talk down" to the students who read them.
Written materials with narrative text that is reinforced with illustrations, graphs, charts, and diagrams	All students with exceptional needs, particularly those with reading problems and those least familiar with the subject matter being taught	Your written materials should convey sufficient information in ways other than written narrative. Written materials can be appropriate for students with reading problems if the written sections are reinforced with graphics. Even students without reading problems may need such illustrations, since some people simply find it easier to learn information that is displayed graphically. Films, filmstrips, audiotapes, videotapes, photographs, slide/tape presentations, mock-ups, cutaways, and models may be used to convey the same information that is presented in written form. While you must emphasize the use of such materials with students who have reading problems, most students can benefit from them and enjoy their use.
Bilingual and native language materials	Students who have limited English proficiency	The problem of how to get across your course content to students who do not understand English well may be solved by bilingual materials and those written in the students' native language. Among those should be technical dictionaries and (if your school provides one in English) a bilingual edition of your school's student handbook.
Materials that highlight important points and that are relatively free of nice-to-know-but-not-essential information	Students who have difficulty in focusing their attention	Materials may highlight important points with color coding, graphic symbols, underlining, or verbal clues (such as "There are two important things to remember here . . ." or "The point here is to . . ."). Programmed materials and performance-based materials are characteristically "pared down" to present essential information and very little nice-to-know information.
Materials that can be used in the grouping arrangement the students prefer or require	All students with exceptional needs	

Materials that can be used to reinforce (strengthen) students' learning	All students with exceptional needs	Many kinds of materials can be used in reinforcement. Basically, these materials offer students the chance to practice a skill or review cognitive information and receive feedback on their performance. Among these materials are written, oral, or graphic summaries and reviews; programmed materials; instructional games; and audiotape and videotape replay. The kinds of reinforcement materials needed by students vary, as does the frequency with which they should be used.
Simplified technical glossaries	All students who have reading problems or whose life-styles have limited their familiarity with technical fields (for instance, displaced homemakers and the sensory and physically impaired)	
Instructional games	All students with exceptional needs, particularly mentally retarded students	Despite the fact that they are usually fun for students to use, instructional games are serious instructional materials. While all students may benefit from using instructional games, mentally retarded students may need them the most because of the repetition that games can offer. Games do not have to be complex or sophisticated in order to be effective. In fact, those you use with mentally retarded students should not be.
Real objects	All students with exceptional needs	Many students find it helpful to have real objects available, including those that are good and bad examples of their kind. For instance, a faulty carburetor may help auto mechanics students understand its deficiencies and how to correct them more clearly than could any number of pictures and written descriptions of carburetors and their problems. A perfect white sauce will show home economics students the final product they're aiming to make. They'll be able to learn the proper taste, consistency, aroma, and appearance and will consequently be better able to judge the ones they'll be making.
Individualized learning packages	All students with exceptional needs, particularly those, such as the gifted and the mentally retarded, whose learning rates (or subject matter they are learning) may differ considerably from those of the rest of the class	

In order to keep track of what you're finding out about the materials, you may want to fill out a form such as the one shown in sample 5. As you complete a form for each of your materials, you'll be creating a written description of the materials, which you can use over and over again.

The top section of the form provides space in which you can identify your program or course and the material being evaluated.

The items listed on the form refer to individual elements that constitute what and how the materials teach. As you consider each item, you need to describe in the right-hand column how that item is reflected in the material.

For instance, suppose you are examining a textbook. You can skim the table of contents and/or index, looking for just those topics you need to cover with each of your students. Those topics that are, in fact, covered can be listed in the right-hand column across from Item 1. Another option would be to duplicate a copy of the table of contents and attach it to the form for future reference.

The textbook obviously uses the visual communication channel, so the word *visual* would be entered in the right-hand column across from Item 2. Since the textbook does not require written responses, you would leave a blank space across from Item 3. Next, you would determine the reading level of the textbook and list that across from Item 4.[4]

Across from Item 5, you would need to enter your appraisal of how plentiful the graphics are, whether they reinforce main points of information, the extent to which a student could depend on the graphics instead of the written narrative, and so on.

In the space across from Item 6, you would note the language (or languages, if the textbook is bilingual) in which the book is written.

Opposite Items 7 and 8, you would state whether the textbook highlights important points of information and, if so, by what method. Also, you could indicate whether the book is cluttered with nonessential, merely nice-to-know information.

For Item 9, you would indicate the grouping arrangements in which the book can be used.

Next to Item 10, you can give your appraisal of whether the textbook generally presents information in large or small steps, whether students are expected to learn information that is presented only once, with no practice or other reinforcement, and so on.

Once you have, through the evaluation process, identified adequate and appropriate materials to meet the needs of all your students—including those with exceptional needs—you can file your evaluation forms for future reference. As new students enroll in your classes, you can then review the information on these forms in terms of how well they match students' needs—exceptional and otherwise. If necessary, you can then search for or develop other needed materials.

Evaluating materials is a necessary part of providing appropriate materials for students with exceptional needs. The evaluation procedures described in this information sheet merely systematize what good teachers do informally all the time in order to provide materials. While the procedures may seem time-consuming at first, they'll get faster and easier as you go along.

4. To gain skill in determining the reading level of printed materials, you may wish to refer to Module B-5, *Select Student Instructional Materials.*

SAMPLE 5

MATERIALS REVIEW FORM

Program or Course Name and Number _____

Title of Material Being Evaluated _____

Type of Material (e.g., book, newspaper clipping, film) _____

Directions: For the material listed above, describe in the right-hand column each of the items listed below.

Items	Comments
1. Major areas of content covered	
2. Communication channel used	
3. Adequacy of space for written responses	
4. Reading level	
5. Extent of graphics	
6. Language used	
7. Extent of highlighting	
8. Extent of cluttering with nonessential information	
9. Grouping arrangement(s) possible	
10. Level of complexity and rate of speed at which information is presented	

Using the following worksheet as a guide, locate and obtain selected student instructional materials and evaluate their appropriateness to the capabilities of the student described in Part I below.

MATERIALS WORKSHEET

Part I: Student Profile

Ruth Ann Tucker, an economically disadvantaged student, moved from rural Appalachia less than a year ago. She is shy, of above average intelligence, and is earning average and below-average grades in your class. You think that Ruth Ann could be doing much better in your class if she were not so poorly motivated.

Ruth Ann seems certain that, once she meets the right man, she will marry and thereafter not work outside the home. Consequently, she sees no reason to try to do well in your class. Apparently, almost none of the women Ruth Ann knew in her rural environment worked outside the home after marriage. They contributed to their families' incomes by gardening and managing their homes efficiently. Had they wanted to work outside the home, few would have found jobs available to them in their rural area.

In addition, Ruth Ann is obviously having trouble "fitting in" with her urban classmates. She feels like an outsider, and her classmates treat her like one.

Ruth Ann's native language is English. You've determined that she reads at the ninth-grade level and prefers to receive information through the tactile (touch) and auditory (hearing) channels. She is not visually handicapped, however, and seems to benefit from the graphic display of information.

You suspect that Ruth Ann would also benefit from the use of real objects and instructional games. She seems to have trouble focusing attention, although you aren't sure whether this problem is due to a real problem with focusing or to her poor motivation.

The use of audiotape and videotape replay works well as reinforcement for Ruth Ann. She seems to learn best when information is presented in relatively small steps, followed by frequent reinforcement.

Ruth Ann works most comfortably alone, although you suspect that this preference has less to do with her actual learning style than with the trouble she is having with her peers. Because of her trouble with peers, you have decided to have Ruth Ann work independently most of the time, using individualized learning packages, among other materials.

You have also arranged to have Ruth Ann spend some time working with small groups of her classmates, under your supervision. By providing some supervised small-group situations, you hope to increase both her classmates' acceptance of her and Ruth Ann's own social skills.

Part II: Student Capabilities

Describe briefly which of Ruth Ann's characteristics would affect the kind of materials you provide and why.

Part III: Materials

Locate at least five different instructional materials—both print and audiovisual—that would typically be used in a vocational-technical class you are teaching or planning to teach. Review these materials and describe the characteristics of each in writing. You may use copies of the Materials Review Form shown in sample 5, p. 34, or you may use the items on that form as a guide in developing a written evaluation in narrative form.

Part IV: Capabilities Compared to Materials

With Ruth Ann's capabilities in mind, review your descriptions of each of the materials and evaluate the appropriateness of each for Ruth Ann. For each of the instructional materials, describe your findings briefly below. Is it appropriate? Totally? Partially? What, if anything, is not appropriate for Ruth Ann, and why?

After you have completed the worksheet, arrange to have your resource person review and evaluate your worksheet. Give him/her the Materials Worksheet Checklist, pp. 37–38, to use in evaluating your work.

MATERIALS WORKSHEET CHECKLIST

Directions: Place an X in the NO, PARTIAL, or FULL box to indicate that each of the following performance components was not accomplished, partially accomplished, or fully accomplished. If, because of special circumstances, a performance component was not applicable, or impossible to execute, place an X in the N/A box.

Name

Date

Resource Person

	LEVEL OF PERFORMANCE			
	N/A	No	Partial	Full
In identifying which of Ruth Ann's characteristics should be taken into account during materials provision, the teacher noted that Ruth Ann:				
1. has English as her native language	☐	☐	☐	☐
2. reads at the ninth-grade level	☐	☐	☐	☐
3. prefers to use the auditory and tactile communication channels	☐	☐	☐	☐
4. benefits from the graphic display of information	☐	☐	☐	☐
5. can benefit from the use of instructional games and real objects	☐	☐	☐	☐
6. seems to have trouble focusing attention	☐	☐	☐	☐
7. benefits from the use of audiotape and videotape replay as reinforcement	☐	☐	☐	☐
8. learns best when information is presented in small steps, followed by reinforcement	☐	☐	☐	☐
9. prefers to work alone	☐	☐	☐	☐
10. needs help developing social skills	☐	☐	☐	☐
In evaluating each of the selected materials, the teacher accurately determined:				
11. major areas of content covered	☐	☐	☐	☐
12. communication channel used	☐	☐	☐	☐
13. adequacy of space for written responses	☐	☐	☐	☐
14. reading level	☐	☐	☐	☐
15. extent of graphics	☐	☐	☐	☐
16. language used	☐	☐	☐	☐
17. extent of highlighting	☐	☐	☐	☐
18. extent of cluttering with nonessential information	☐	☐	☐	☐
19. grouping arrangements possible	☐	☐	☐	☐
20. level of complexity and rate of speed at which information is presented	☐	☐	☐	☐

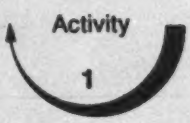
In evaluating the appropriateness of each of the selected materials for Ruth Ann, the teacher determined whether:	N/A	No	Partial	Full
21. the communication channel used matched Ruth Ann's preference for tactile and auditory channels	☐	☐	☐	☐
22. the reading level was ninth grade or slightly lower	☐	☐	☐	☐
23. the use of graphics was extensive enough to match Ruth Ann's need	☐	☐	☐	☐
24. English was the language used	☐	☐	☐	☐
25. important points of information were highlighted	☐	☐	☐	☐
26. the materials contained little nonessential, nice-to-know information	☐	☐	☐	☐
27. the materials could be used in either small-group or independent situations	☐	☐	☐	☐
28. information was presented in steps small enough for Ruth Ann	☐	☐	☐	☐
29. the materials had the potential to motivate Ruth Ann	☐	☐	☐	☐

Level of Performance: All items must receive FULL or N/A responses. If any item receives a NO or PARTIAL response, the teacher and resource person should meet to determine what additional activities the teacher needs to complete in order to reach competency in the weak area(s).

Learning Experience III

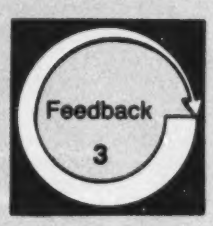
OVERVIEW

After completing the required reading, adapt operation sheets to match the capabilities of students with a given exceptional need.



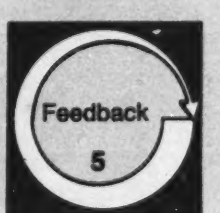
You will be reading the information sheet, Adapting and Developing Materials, pp. 40–49.

You will be reviewing the Operation Sheet, p. 50, evaluating its appropriateness for students who read at the fifth-grade level, and planning how you would adapt that sheet to be more appropriate.

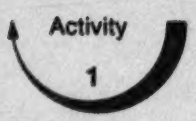


You will be evaluating your competency in planning how to adapt an operation sheet by comparing your completed adaptation plan with the Model Adaptation Plan, p. 51.

You will be adapting an operation sheet from your own vocational service area so that it is appropriate for students who read at the fifth-grade level.



Your competency in adapting an operation sheet will be evaluated by your resource person, using the Adaptation Checklist, p. 53.



For information on how to adapt/develop student instructional materials in order to make them appropriate for students with exceptional needs, read the following information sheet.

ADAPTING AND DEVELOPING MATERIALS

Once you have evaluated the appropriateness of your instructional materials, you have reached a very important point in providing materials for your students. The task now is to solve any problems identified during your evaluation by adapting materials or developing new ones.

It's quite likely that your evaluation revealed that you have some materials that you cannot use as is. Your evaluation probably identified specific problems within some materials. Nonetheless, you'll be able to use many of those materials if you **adapt** them (or their use) **to overcome bias** or **to match students' capabilities**.

For instance, an audiotape that is biased because it contains "humor" that belittles may be rerecorded or edited to omit the offensive material. A printed diagram, which presents information through the visual channel, may be produced in raised tape so that visually impaired students can receive its information tactilely, through their fingertips.

But what happens when such adaptations are not practical? Then you will need to **develop** the required materials. Suppose, for example, that an instructor wanted to teach his/her students to read various gauges on the equipment used in the course. This instructor usually explains how to read these gauges by simply demonstrating this skill to students grouped around the gauges in the classroom.

However, this term the instructor has two mentally retarded students in the class. These two students will need considerably more practice at reading gauges before they will be able to do it accurately. Unfortunately, only two examples relative to reading gauges appear in the textbook. This instructor could decide to develop a simple instructional package on reading gauges for the two students to use following the demonstration. The package could contain plenty of drawings of gauges so that they can adequately practice their gauge-reading skill.

These options—to adapt or to develop—also exist in regard to additional subject matter coverage needed. You can adapt materials that you have so that they **cover additional subject matter areas that your students need to learn.** Or you can develop new materials for the same purpose. You can also adapt or develop the technical glossaries, real objects, instructional games, individualized learning packages, and reinforcement materials that are needed for particular students.

For instance, you could develop your own videotape, showing an "ideal" demonstration of how to take a patient's blood pressure. Then your students could reinforce what they have already learned about the skill by comparing videotapes of their own attempts with the videotaped model.

You should not worry unduly about the differences between adapting and developing. These activities overlap, and it seems that what one person considers to be adaptation, another considers to be development. For example, suppose you tape-record a student reading a textbook chapter aloud so that a visually impaired student can later listen to the tape. Have you adapted the textbook or developed an audiotape?

In this information sheet, this tape recording is considered to be an adaptation, because only the channel through which information was presented was changed. We are considering development to be efforts to create materials more or less "from scratch" or to pull together various parts of several materials into one component. But it matters little whether you call the changes you make in materials *adaptation* or *development.* What matters is that you provide appropriate materials to meet the needs of your students.

Overcoming Bias

All materials should have been evaluated for bias. As you look at the results of that evaluation, you need to consider how each identified bias problem can be overcome. Those materials may contain one or more of the following bias problems:

- Offensive language
- Underrepresentation of a particular group in examples, case studies, or illustrations
- Stereotypic style of illustrations
- No mention of contributions made by a particular group
- Stereotypic assumptions relative to a particular group about (1) kinds and levels of jobs held; (2) interests, abilities, and work and educational aspirations; (3) physical appearance; (4) life-style; or (5) activities on and off the job
- Consistent portrayal of situations/activities that reflect only middle and upper economic levels
- "Humor" that belittles
- Evidence that the material has a "point of view" excluding some students

Thinking of solutions to bias problems is often simply a matter of common sense and professional judgment. Whether you decide to adapt or develop materials to overcome bias problems, you will essentially be **compensating for** the problems or **eliminating** them.

One way to eliminate bias problems is to physically remove objectionable content from materials. For instance, suppose you have a written handout that uses sexist terms or uses masculine terms (e.g., *mankind, repairman*) as generics. You could eliminate this bias problem by rewriting and retyping the handout. Sample 6 shows some nonsexist equivalents for sexist terms, and sample 7 shows some generic equivalents for masculine terms.

Another way of eliminating a bias problem is to abandon use of the biased materials altogether and to select other materials. This method of overcoming bias should be used when the bias within materials cannot be eliminated by physically removing objectionable areas or by sufficiently compensating for the bias. Of course, the new material you select as a substitute should itself be unbiased. If it is not unbiased, at least the bias should be such that it can more easily be eliminated or compensated for.

Sometimes you can compensate for bias that cannot be eliminated. It may not be easy, for example, to physically change the examples and case studies within an otherwise excellent workbook or textbook in order to add examples relevant to the lives of economically disadvantaged students. However, you could make sure that your students receive such examples and case studies by supplying them in the form of supplemental written handouts.

Another way of compensating for bias involves selecting new materials—without abandoning use of the biased ones. Suppose, for instance, that you have a series of posters that show men and women at work in various jobs. You very much want to hang the posters around the room because they are attractive and convey a lot of information about the range of jobs in your service area. What's more, they show **both** men and women and several minority workers. Unfortunately, they do not show any older Americans at work. Further, only racial minority group members are shown in subordinate jobs.

SAMPLE 6

NONSEXIST ALTERNATIVES TO SEXIST TERMS

Sexist Terms	Nonsexist Terms
1. Woman doctor, male nurse, lady lawyer	1. Doctor, nurse, lawyer
2. Ladies, fair sex, weaker sex, girls (in reference to adult females)	2. Women
3. Housewife	3. Homemaker
4. Coed	4. Student
5. Mrs.	5. Ms.
6. My girl	6. Secretary, assistant
7. The little woman	7. Wife
8. Authoress, poetess	8. Author, poet
9. Steward, stewardess	9. Flight attendant

SAMPLE 7

GENERIC ALTERNATIVES TO MASCULINE TERMS

Masculine Terms Used Generically	Generic Terms
1. Man, mankind	1. Humans, human beings, human race, humanity, people, individuals, men and women, women and men
2. He and other masculine pronouns	2. He/she, he or she, or plurals such as they; him/herself, themselves
3. Working man	3. Worker
4. Congressman	4. Member of Congress
5. Businessman	5. Business person, business executive
6. Salesman	6. Salesperson, sales representative, sales agent, member of sales force
7. Man-hours	7. Person-hours, working hours
8. Foreman	8. Supervisor
9. Insurance man	9. Insurance agent
10. One-man job	10. One-person job, solo job
11. Cameraman, pressman	11. Camera operator, press operator
12. Middleman	12. Go-between, liaison
13. Fireman, policeman	13. Fire fighter, police officer
14. Manpower	14. Human energy, human resources, labor market, workers, work force
15. Repairman	15. Repairer
16. Mailman	16. Mail carrier, letter carrier
17. Spokesman	17. Spokesperson, representative
18. Brotherhood	18. Unity, community
19. Chairman	19. Chairperson, leader, moderator, coordinator
20. Lineman	20. Line installer
21. Right-hand man	21. Assistant
22. Man-sized	22. Big, huge
23. Manmade	23. Synthetic, manufactured
24. Manhood	24. Adulthood, maturity

How can you compensate for these bias problems? You can simply avoid displaying the posters until you have selected additional posters or other illustrations that show older Americans at work, whites working in subordinate jobs, and racial minority group members working at high-level jobs. In this way, you can still use the original poster series because you will have compensated for its bias.

There is another important way of compensating for bias. It should be used only when the bias in otherwise good materials cannot be reasonably eliminated or otherwise compensated for. You can handle this situation by pointing out the bias in the materials and leading a discussion about bias with your students. It is important that this method be neither overused or underused.

You will be **underusing the method** if you discuss bias only once with your students during a course in which you often use materials containing bias. One discussion per course simply does not compensate for the frequent use of biased materials. Each time you have to use biased materials, the bias should be pointed out to and discussed with the students using the materials.

You should also avoid **overusing this method** of compensation. In other words, you should not use discussions on bias as a "cop out"—depending on them to overcome bias that you could reasonably eliminate or otherwise compensate for. Pointing out and discussing bias should be used only as a last resort.

In determining which option you will use to overcome bias in materials, your decision will depend on several interrelated factors: (1) available time, (2) available money, and (3) available expertise/equipment. Among the kinds of questions you should ask yourself about each option are the following:

1. Who is capable of making the physical adaptations/developments that will eliminate or compensate for the bias in this material? Do they have the equipment necessary to adapt/develop? (Remember to consider not just yourself as potential adapter/developer but also students, other teachers, and media professionals in your school. Persons in the community may also be able to help you out.)
2. Is there sufficient time to adapt/develop or to locate, order, and receive the materials I want?
3. Is there sufficient money available for the adaptations/developments or for the materials I want?

Your answers to these questions will help you decide which option to use for overcoming bias.

Matching Capabilities

Among the materials you have that teach **what** students need to learn, you probably have identified some that don't teach in the **way** those students need to be taught. You may have judged these materials to be inappropriate for one or more of the following reasons. (As you read the list of reasons, remember that they apply to materials **only** in terms of the exceptional needs of the students for whom they are intended. That is, a journal article written at a high reading level would not have been judged inappropriate for that reason unless it was intended for a student who cannot read at that level.)

- The material does not present information through the communication channels the student prefers or requires. If the material is audiovisual, the portion the student needs—either the audio or the visual—does not, by itself, convey sufficient information.
- The material does not permit the student physically to make responses in the easiest way possible.
- The material is written at too high a reading level.
- The written narrative is not sufficiently reinforced with illustrations, graphs, charts, or diagrams.
- The material is cluttered with nonessential nice-to-know information or does not highlight important points of information.
- The material is not bilingual or in the student's native language.
- The material cannot be used in the grouping arrangement the student needs or prefers.
- The material presents information in too complex a manner (e.g., is not broken down into small-enough steps).

Your task is to decide whether you can best match your students' capabilities by adapting the material (or its use) or by developing or selecting replacement materials. The information that follows should help you make those decisions. (Because of the blurred distinctions between adapting and developing, the information regarding those activities has been, in most cases, combined.)

As in the case of overcoming bias, deciding what must be done to make materials teach in the way the student needs to be taught is often a matter of common sense and professional judgment. Sometimes, however, you will need the professional judgment of those trained to teach students with specific kinds of exceptional needs. Special education teachers, for example, could help you decide how to break information down into small-enough steps for a particular mentally retarded student. Remedial reading teachers could help you prepare simplified written materials. English-as-a-Second-Language (ESL) teachers could help you develop bilingual materials.

If the problem is that the materials do not present information through the **communication channel** the student needs/prefers, the obvious solution is to change the channel. To change the channel from visual to auditory or tactile for a visually impaired student, for example a variety of techniques can be used. Written materials may be converted to braille, large-print, or audiotape. Or you could have another student or an aide read the written material aloud to the student.

You could substitute real objects or mock-ups, supplemented with oral explanations, for written descriptions. Important schematic drawings, charts, and diagrams that appear in printed form could be redrawn with raised tape. Conventional paper-and-pencil tests could be given orally.

If materials use the auditory channel but are intended for a hearing-impaired student, you'll obviously want to change the channel to visual or kinesthetic. You could, for instance, provide a written script of an audiotape; of the audio portion of a film, videotape, or slide presentation; or of the comments you made in an overhead transparency presentation.

If you provide such a script, you should give it to the student well in advance of the presentation so that he/she will have time to become familiar with it before seeing the visual presentation. Otherwise, trying to read the script while viewing the visual portion could be distracting.

If the student uses American Sign Language (ASL), you could arrange to have an ASL interpreter "sign" your comments to the student. Or, you may find an opportunity to learn ASL yourself.

The previous examples refer to channel adaptations/developments of materials for sensory impaired students. But **any** student with exceptional needs may need/prefer to receive information through a particular channel or channels. To the extent possible, you should accommodate that need/preference by using methods similar to those outlined previously.

Another problem you may have found in some of your materials (e.g., tests and workbooks) is that the **spaces provided for written responses** are too small. Or, it may be that the kind of response asked for requires more manual dexterity than some of your orthopedically impaired students possess. In most cases, simply providing separate sheets of paper on which the student can make written responses is a sufficient adaptation for these materials. Or you might permit the student to respond orally—in person or on tape.

You may have found that some of your materials are written at too high a **reading level** for the students you intend to use them with. You'll need to lower the reading level of these materials to a level the students can read. This can usually be done simply by shortening the length of sentences and using smaller words or presenting the material in smaller units (e.g., lists). You'll have to be careful, of course, not to change the meaning of the original written material and not to "talk down" to the students who will be reading the material.

You can compensate for materials that are not sufficiently reinforced with **graphics** by giving students illustrations, charts, diagrams, and graphs you have adapted/developed to accompany the original materials. Suppose, for instance, that you have a student who needs to have information displayed graphically. A particular article you want the student to use, however, does not contain sufficient graphics.

In order to make this article fit the capabilities of the student, you would need to develop (or select) appropriate graphic materials, handouts, or transparencies that the student can use in conjunction with the article. The graphic materials can be developed by you or someone else in your school. They do not necessarily have to be done in an elegant, professional way. You just need to make sure they get the information across to the student.

To adapt/develop materials to be used with **students who have trouble focusing attention,** you can remove nonessential, nice-to-know information or highlight important points. You may not be able to physically remove extraneous material in all the existing materials you intend to use (from a textbook, for example). But, in many instances, it is relatively simple to use a "highlighting" pen (the kind that puts color on paper but allows print to show through). Or you can underline or use small colored dots in the margin to point out important information. Techniques such as these should help a student identify what he/she should learn.

If you must use audiovisual materials (e.g., films and slide presentations) that you think are too "cluttered" for particular students, you can talk with the students before each presentation. You can brief them about what to expect in the presentation and point out what they will be expected to learn from it. This kind of preparation should help them attend to the important information in the presentation.

Other adaptations/developments may be required for **students with limited English proficiency.** Some materials written in English may lend themselves to the development of supplemental graphic illustrations. This would decrease the amount of information conveyed in writing. Others may be translated into the students' native language or may be made bilingual.

Sample 8 shows part of a handout, written in English, that has been adapted to present information in a bilingual manner. In this sample, a technique called *interlinear translation* has been used. As you can see, each line of text written in English is followed by a translation of that line into the student's native language. Interlinear translations are usually necessary only at the beginning of training. As the students' English ability increases, the materials you prepare for them will probably need less translation.

Sample 9 shows a handout in which only new vocabulary essential to the task at hand has been translated. The translated words, you'll notice, appear in a glossary at the bottom of the handout. This format is more convenient for the student to use than one in which the student must look up the words in a separate glossary or at the back of the book.

If you use audiovisual materials (such as film, videotape, slide/tape, or transparencies) that are narrated in English, you can provide a translator for students with limited English profiency. Or you might provide bilingual or native-language scripts of the narrative. Remember to make sure these students have ample time to study the script before each presentation.

The development of bilingual or native-language materials does not require that you become fluent in the native languages of all your limited-English-proficiency students. That, obviously, would be an unrealistic assignment and unfair burden for the vocational-technical instructor. How, then, can you adapt or develop bilingual or native-language materials for the students who need them?

You can get help from others in your school or college, district, and community: foreign language teachers and the students in their classes, other bilingual students, ESL teachers, and people in the community who are bilingual.

You may also need to adapt/develop materials that can be used in the particular **grouping arrangements** a student needs or prefers. Sometimes, you have only to adapt the use of the materials to make them appropriate for a student. You may be accustomed, for instance, to showing films only to large groups of students. However, if only one student needs to learn what a particular film teaches, there is no reason why that student can't view the film alone, provided you can arrange appropriate space for him/her to do so.

In other instances, you may have to adapt/develop the materials so they can be used in a particular grouping arrangement. This may require quite a bit of creativity and resourcefulness on your part. Suppose, for instance, that the subject matter that two (or more) students need to learn is covered in a programmed text. Sample 10 shows an example from such a text. Suppose, also, that these students do not learn well when working independently, as programmed texts are designed to be used.

You could adapt/develop appropriate materials for these students by using the programmed text to create, for example, a simple instructional game for two or more players. You could simply reproduce each unit of the text (each numbered portion in sample 10) on one side of a card. You could then put the correct response on the back of the card. The cards can then be arranged response-side-down in the order in which the units appear in the text. The students can take turns drawing a card and reading the unit aloud to the other student. As each student reads a unit, the other student can check the correctness of the response by looking at the back of the card.

You may also need to adapt/develop some materials (or their use) because of their high **level of complexity**. They present information in too complex a manner. They give the student too much information too quickly—stating things only once and moving on to something else.

For instance, an overhead transparency presentation you usually make may move too rapidly for your mentally retarded students. You can make the presentation more appropriate for these students by showing each transparency for a longer period of time and explaining each more thoroughly than you usually would. (These students may also benefit from having paper copies of the transparencies to refer to later.)

Printed materials may also need to be made less complex. As you simplify printed materials, such as handouts, you need to make sure that you "spell things out" for the student. You should add illustrations when necessary for clarity. In addition, it may be helpful to include definitions and illustrations of important words with which the students may not be familiar.

SAMPLE 8

INTERLINEAR TRANSLATION

UNIT 8: ORAL TEMPERATURE
Unidad 8: Temperatura Oral

1. What will I learn from this unit?
   ¿Que voy a aprender en esta unidad?
   - To take a patient's temperature using an oral thermometer
     Tomar la temperatura de un paciente usando un termómetro oral
   - To record the temperature on the patient's chart
     Anotar la temperatura en la hoja clínica del paciente
2. How will I demonstrate that I have learned these tasks?
   ¿Cómo demostraré que he aprendido estas tareas?
   - By correctly taking a person's temperature using an oral thermometer
     Tomando correctamente la temperatura de una persona usando un termómetro oral
   - By recording a person's temperature on a patient's chart with 100% accuracy
     Anotando la temperatura de una persona en la hoja clínica de un paciente con 100% de precisión
   - By completing the self-assessment instrument with at least 90% accuracy
     Completando la prueba de evaluación propia con por lo menos el 90% de precisión

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SOURCE: Adapted from *Handbook for Bilingual Vocational Materials Development*, Bilingual Vocational Study Series Nursing Assistant Course (Arlington, VA: Development Associates, 1978).

SAMPLE 9

TRANSLATION OF NEW TERMS

UNIT 41: ADMISSIONS AND DISCHARGE

Read this material:

New patients may be suffering *acute*[1] *distress*[2] upon their arrival. And even for those new arrivals who are not experiencing severe pain, the entrance into a hospital is almost always accompanied by considerable *apprehension.*[3]

Recognizing and being *sensitive*[4] to the mental state of new patients is of the *utmost*[5] importance to the Nursing Assistant. Their welfare is the Nursing Assistant's number one responsibility. Many patients, in *recollecting*[6] their experiences in a hospital, have *legitimately*[7] complained that the health workers appeared to be more concerned about their routines and regular duties than about the patients.

Often the mental distress is as severe as the physical suffering, or even more so. Since the nursing and medical staffs are responsible for providing the medicines, the Nursing Assistant can *devote*[8] considerable time to the emotional state of the patient.

If there appears to be physical pain, then the nurse or doctor can be called at once. However, if the distress appears to be psychological, the Nursing Assistant will be called upon to *give reassurance*[9] and *encouragement.*[10] By showing concern and interest in a patient's *well-being,*[11] a relationship of trust can be established early. It is this trust that forms the basis for future cooperation between the patient and the medical staff and *sets the stage*[12] for physical and mental recovery. It is this relationship that helps the patient make the transition to the hospital environment.

1. agudo
2. dolor
3. aprensión
4. sensiblê
5. suma, extrema
6. recordando
7. legítimamente
8. dedîcar
9. dar confianza
10. dar ánimo
11. bienestar
12. preparar (el estado de ánimo)

SOURCE: Adapted from *Handbook for Bilingual Vocational Materials Development*

SAMPLE 10

EXCERPT FROM A LINEAR PROGRAM USING MULTIPLE-CHOICE RESPONSES

2
As a housekeeping aide, you are part of the hospital staff. You share in the hospital's main job, which is to help sick people get well.

People often get sick with infections. When someone has an infection, it means that a harmful germ has gotten inside his/her body and is growing there.

Harmful germs—

- ☐ can grow inside a human body — can grow inside a human body
- ☐ never grow inside a human body.

3
Harmful germs live and grow inside the human body. They live and grow on objects, too. Harmful germs live on tables, floors, vacuum cleaners, and mop heads. It is not until these harmful germs get inside a human body that an infection can begin.

In which of these places could there be an infection ? *(Check two answers.)*

- ☐ In a stomach — In a stomach
- ☐ In the air
- ☐ On food
- ☐ On the floor
- ☐ In a cut — In a cut
- ☐ On bed linen

In which of these places could there be germs?

- ☐ On bed linen
- ☐ In food
- ☐ In a person's mouth
- ☐ In the air
- ☐ On the floor
- ☐ All of the above — All of the above

SOURCE: Health Care Facilities Service, Public Health Service, U.S. Department of Health, Education, and Welfare, *The Care and Cleaning of Housekeeping Equipment and the Storage Room in Health Facilities: A Programmed Course for Housekeeping Personnel* (Washington, DC: U.S. Government Printing Office, 1971), pp. 3–4.

Seeking Help from Others

While the primary responsibility for providing materials belongs to you, the teacher, not all related tasks are yours to do alone. As mentioned previously, you can look to others in your school and community for help. Your own students, for instance, may tape-record textbook chapters for you. Students in art classes, perhaps, may be willing to help you prepare bias-free illustrations and additional graphics. Media specialists, special education teachers, and foreign language teachers could also be asked to help.

There are, in addition, sources of free materials and equipment available in your community. For example, employers may welcome the opportunity to help you plan math and reading examples that realistically reflect what your students will encounter on the job. They may, in fact, be willing to supply copies of job sheets, instruction manuals, and other materials, which you could reproduce as examples for your students.

It is obviously to your advantage to identify and develop community resources. Encourage your students, too, to identify unconventional sources of materials and equipment.

Providing appropriate materials can be a time-consuming task. It's important to remember that the materials that you provide to students in your current classes may quite often be used with later classes. Consequently, the biggest investment of time will probably occur during the first time you systematically attempt to provide (1) unbiased materials for all your students and (2) materials that match the capabilities of students with exceptional needs.

Just remember that, piece by piece, you'll be building a comprehensive set of appropriate materials for these and future classes. The rewards, as you watch your students succeeding in your program, should be worth the time required to provide appropriate instructional materials.

Assume that you have several exceptional students in your class who read at the fifth-grade level. The following operation sheet is the one you generally use with your students. Review the sheet and **explain in writing** how you would adapt it to better match the abilities of these students.

OPERATION SHEET

OPERATION TITLE:	Make a hemmed cuff
PURPOSE:	The hemmed cuff is an excellent finish for blouses.
CONDITIONS OR SITUATIONS FOR THE OPERATION:	The cuff and sleeve are cut in one piece so that the cuff section is shaped to turn back smoothly over the sleeve. You will receive a sleeve whose underarm seam has been stitched.
EQUIPMENT, TOOLS, AND MATERIALS:	Iron, ironing board, scissors, straight pins, basting thread and needle, sewing machine, thread that matches sleeve fabric color
PROCEDURE:	1. Fold the cuff up three inches and press. Baste before pressing, if necessary. 2. Fold the free edge of the hem under ¼ inch, and finger press. 3. Pin the free edge of the cuff to the sleeve, matching seams. 4. Stitch the cuff to the sleeve near the pinned edge, using the sewing machine. Use thread that matches the fabric. (If a machine is not available, you can hand sew.) 5. Turn the sleeve to the right side. Turn the cuff back over the sleeve, ½ inch below the stitching. Press the cuff.
QUALITY CRITERIA:	1. Seams should be matched. 2. The ¼-inch hem of the cuff should be completely stitched down, with no gaps or unevenness. The seam should be straight. 3. The cuff should be folded smoothly back over the sleeve. 4. There should be no wrinkles in the finished sleeve and cuff.

Compare your completed adaptation plan with the model plan given below. Your response need not exactly duplicate the model response; however, you should have covered the same **major** points.

MODEL ADAPTATION PLAN

Several adaptations should be made to the operation sheet in order to make it appropriate for students who read at the fifth-grade level.

You would need to use **simpler words** than those used in the original operation sheet. For example, the headings could be rewritten as follows:

Headings

Conditions or Situations for Operation
Equipment, Tools, and Materials
Procedure
Quality Criteria

Rewritten Headings

What You Will Be Given
What You Will Need
Here's How
Things to Check

The use of shorter, **simpler sentences** would also help. For example, the sentence "Fold the cuff up three inches and press" could be rewritten as follows: "Fold the cuff up three inches. Press."

Shortening and simplifying words and sentences will automatically lower the reading level of the operation sheet. However, you should make certain that your adapted operation sheet has a reading level of fifth grade or lower. You can check by applying any standard reading-level formula, such as the Simplified Flesch Formula.

Simple **drawings** that illustrate each step of the procedures should also be included, with parts of the drawings labeled as necessary. A **vocabulary list**, which contains simple definitions of important words that appear on the adapted information sheet, would also be helpful (e.g. *Baste:* to sew large stitches to hold fabric together for only a little while).

The format could also be changed to make the sheet easier to read. For example, the equipment, tools, and materials are now presented one after the other horizontally, with commas in between. By listing them vertically in a column, one item per line, it would be easier to quickly see what is needed.

These adaptations—shorter sentences, simpler words, illustrations, a vocabulary list, and a simpler format—would make it possible for students who read at the fifth-grade level to benefit from using the operation sheet.

Level of Performance: Your completed adaptation plan should have covered the same **major** points as the model plan. If you missed some points or have questions about any additional points you made, review the material in the information sheet, Adapting and Developing Materials, pp. 40–49, or check with your resource person if necessary.

Select an operation sheet commonly used with students in your vocational area. This may be one you use yourself, one developed by another instructor, or one provided by your resource person. Keeping in mind the previous activity during which you **planned** appropriate adaptations for an operation sheet, adapt your selected operation sheet to make it appropriate for students who read at the fifth-grade level.

After you have adapted your operation sheet, arrange to have your resource person review and evaluate the sheet. Give him/her the Adaptation Checklist, p. 53, to use in evaluating your work.

ADAPTATION CHECKLIST

Directions: Place an X in the NO, PARTIAL, or FULL box to indicate that each of the following performance components was not accomplished, partially accomplished, or fully accomplished. If, because of special circumstances, a performance component was not applicable, or impossible to execute, place an X in the N/A box.

Name _____

Date _____

Resource Person _____

	LEVEL OF PERFORMANCE			
	N/A	No	Partial	Full
In adapting the selected operation sheet, the teacher:				
1. identified what adaptations were needed	☐	☐	☐	☐
2. made each of the following adaptations if needed:				
a. simplified the words used	☐	☐	☐	☐
b. shortened the sentences	☐	☐	☐	☐
c. added illustrations	☐	☐	☐	☐
d. included a vocabulary list	☐	☐	☐	☐
e. simplified the format	☐	☐	☐	☐
3. checked the reading level using a standard reading-level formula to ensure that it was at the fifth grade or lower	☐	☐	☐	☐

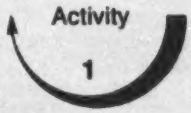
Level of Performance: All items must receive FULL or N/A responses. If any item receives a NO or PARTIAL response, the teacher and resource person should meet to determine what additional activities the teacher needs to complete in order to reach competency in the weak area(s).

NOTES

Learning Experience IV

FINAL EXPERIENCE

In an **actual teaching situation,*** provide appropriate instructional materials for exceptional students.



As part of your duties as a teacher, provide appropriate instructional materials. This will include—

- evaluating materials for bias
- evaluating materials to determine whether they match the capabilities of your exceptional students
- adapting, developing, and selecting appropriate materials

NOTE: As you perform each of the above activities, document your actions (in writing, on tape, through a log) for assessment purposes.

Arrange to have your resource person review your documentation and the materials you provide for students.

Your total competency will be assessed by your resource person, using the Teacher Performance Assessment Form, pp. 57–59.

Based upon the criteria specified in this assessment instrument, your resource person will determine whether you are competent in providing appropriate instructional materials for exceptional students.

**For a definition of "actual teaching situation," see the inside back cover.*

NOTES

TEACHER PERFORMANCE ASSESSMENT FORM

Provide Appropriate Instructional Materials for Exceptional Students (L-4)

Directions: Indicate the level of the teacher's accomplishment by placing an X in the appropriate box under the LEVEL OF PERFORMANCE heading. If, because of special circumstances, a performance component was not applicable, or impossible to execute, place an X in the N/A box.

Name _____

Date _____

Resource Person _____

	LEVEL OF PERFORMANCE					
	N/A	None	Poor	Fair	Good	Excellent
In evaluating materials for bias, the teacher:						
1. evaluated materials for **all** students, not just those for students with exceptional needs	☐	☐	☐	☐	☐	☐
2. identified any offensive language	☐	☐	☐	☐	☐	☐
3. identified any underrepresentation of a particular group in examples and case studies (including tokenism)	☐	☐	☐	☐	☐	☐
4. identified any underrepresentation of a particular group in illustrations (including tokenism)	☐	☐	☐	☐	☐	☐
5. identified any illustrations done in a stereotypic style	☐	☐	☐	☐	☐	☐
6. identified any failure to mention the contributions made by a particular group (when the contributions of other groups are discussed)	☐	☐	☐	☐	☐	☐
7. identified any stereotypic assumptions about a particu group's interests, abilities, and work and educational aspirations	☐	☐	☐	☐	☐	☐
8. identified any stereotypic assumptions about a particular group's physical appearance	☐	☐	☐	☐	☐	☐
9. identified any stereotypic assumptions about a particular group's life-styles	☐	☐	☐	☐	☐	☐
10. identified any stereotypic assumptions about a particular group's activities on and off the job	☐	☐	☐	☐	☐	☐
11. identified any consistent portrayal of situations/activities that are relevant to the lives of students only at middle and upper economic levels	☐	☐	☐	☐	☐	☐
12. identified any "humor" that belittles	☐	☐	☐	☐	☐	☐
13. identified any evidence that materials have a "point of view," assuming a certain type of user	☐	☐	☐	☐	☐	☐

	N/A	None	Poor	Fair	Good	Excellent
In evaluating materials to determine whether they matched the capabilities of students with exceptional needs, the teacher:						
14. located materials that teach what each student needs to be taught in the course	☐	☐	☐	☐	☐	☐
15. evaluated whether the materials intended for gifted students:						
a. were intellectually challenging	☐	☐	☐	☐	☐	☐
b. reflected the reasons these students were taking the course	☐	☐	☐	☐	☐	☐
16. evaluated whether the materials intended for older students and students enrolled for retraining assumed a certain level of maturity and life experience on the part of the student	☐	☐	☐	☐	☐	☐
17. evaluated whether the materials included math and reading examples at the same level the students will find on the job	☐	☐	☐	☐	☐	☐
18. evaluated how well the materials matched each student's learning style and other characteristics	☐	☐	☐	☐	☐	☐
In providing materials that were unbiased and that matched the capabilities of each student with exceptional needs, the teacher:						
19. made practical decisions about whether to adapt, develop, or select materials	☐	☐	☐	☐	☐	☐
20. involved appropriate other people in the effort to adapt/develop materials	☐	☐	☐	☐	☐	☐
21. overcame every identified instance of bias by either eliminating or compensating for the bias	☐	☐	☐	☐	☐	☐
22. adapted, developed, or selected materials so that each student with exceptional needs had access to materials that:						
a. covered the major areas of content needed	☐	☐	☐	☐	☐	☐
b. used his/her required/preferred communication channel	☐	☐	☐	☐	☐	☐
c. were written at the appropriate reading level	☐	☐	☐	☐	☐	☐
d. could be used in his/her preferred/required grouping arrangement	☐	☐	☐	☐	☐	☐
e. presented information at the appropriate level of simplicity	☐	☐	☐	☐	☐	☐
f. presented sufficient amounts of appropriate kinds of reinforcement	☐	☐	☐	☐	☐	☐

	N/A	None	Poor	Fair	Good	Excellent
23. depending on students' needs/preferences, adapted, developed, or selected materials that:						
a. offered adequate space for written responses	☐	☐	☐	☐	☐	☐
b. reinforced narrative text with graphics	☐	☐	☐	☐	☐	☐
c. highlighted important points of information	☐	☐	☐	☐	☐	☐
d. contained little nonessential, nice-to-know information	☐	☐	☐	☐	☐	☐
e. were bilingual or in the student's native language	☐	☐	☐	☐	☐	☐
f. included information in forms other than the printed word ...	☐	☐	☐	☐	☐	☐
g. included simplified technical glossaries, instructional games, real objects, and individualized learning packages	☐	☐	☐	☐	☐	☐
24. sought materials from appropriate sources	☐	☐	☐	☐	☐	☐

Level of Performance: All items must receive N/A, GOOD, or EXCELLENT responses. If any item receives a NONE, POOR, or FAIR response, the teacher and resource person should meet to determine what additional activities the teacher needs to complete in order to reach competency in the weak area(s).

NOTES

UPD 9070/5-83

ABOUT USING THE NATIONAL CENTER'S PBTE MODULES

Organization

Each module is designed to help you gain competency in a particular skill area considered important to teaching success. A module is made up of a series of learning experiences, some providing background information, some providing practice experiences, and others combining these two functions. Completing these experiences should **enable** you to achieve the **terminal** objective in the final learning experience. The final experience in each module always requires you to demonstrate the skill in an actual teaching situation when you are an intern, a student teacher, an inservice teacher, or occupational trainer.

Procedures

Modules are designed to allow you to individualize your teacher education program. You need to take only those modules covering skills that you do not already possess. Similarly, you need not complete any learning experience within a module if you already have the skill needed to complete it. Therefore, before taking any module, you should carefully review (1) the introduction, (2) the objectives listed on p. 4, (3) the overviews preceding each learning experience, and (4) the final experience. After comparing your present needs and competencies with the information you have read in these sections, you should be ready to make one of the following decisions:

- That you do not have the competencies indicated and should complete the entire module
- That you are competent in one or more of the enabling objectives leading to the final learning experience and, thus, can omit those learning experiences
- That you are already competent in this area and are ready to complete the final learning experience in order to "test out"
- That the module is inappropriate to your needs at this time

When you are ready to complete the final learning experience **and** have access to an actual teaching situation, make the necessary arrangements with your resource person. If you do not complete the final experience successfully, meet with your resource person and arrange to (1) repeat the experience or (2) complete (or review) previous sections of the module or other related activities suggested by your resource person before attempting to repeat the final experience.

Options for recycling are also available in each of the learning experiences preceding the final experience. Any time you do not meet the minimum level of performance required to meet an objective, you and your resource person may meet to select activities to help you reach competency. This could involve (1) completing parts of the module previously skipped, (2) repeating activities, (3) reading supplementary resources or completing additional activities suggested by the resource person, (4) designing your own learning experience, or (5) completing some other activity suggested by you or your resource person.

Terminology

Actual Teaching Situation: A situation in which you are actually working with and responsible for teaching secondary or postsecondary vocational students or other occupational trainees. An intern, a student teacher, an inservice teacher, or other occupational trainer would be functioning in an actual teaching situation. If you do **not** have access to an actual teaching situation when you are taking the module, you can complete the module **up to** the final learning experience. You would then complete the final learning experience later (i.e., when you have access to an actual teaching situation).

Alternate Activity or Feedback: An item that may **substitute** for required items that, due to special circumstances, you are unable to complete.

Occupational Specialty: A specific area of preparation within a vocational service area (e.g., the service area Trade and Industrial Education includes occupational specialties such as automobile mechanics, welding, and electricity).

Optional Activity or Feedback: An item that is not required but that is designed to **supplement** and enrich the required items in a learning experience.

Resource Person: The person in charge of your educational program (e.g., the professor, instructor, administrator, instructional supervisor, cooperating/supervising/classroom teacher, or training supervisor who is guiding you in completing this module).

Student: The person who is receiving occupational instruction in a secondary, postsecondary, or other training program.

Vocational Service Area: A major vocational field: agricultural education, business and office education, marketing and distributive education, health occupations education, home economics education, industrial arts education, technical education, or trade and industrial education.

You or the Teacher/Instructor: The person who is completing the module.

Levels of Performance for Final Assessment

N/A: The criterion was not met because it was **not applicable** to the situation.

None: No attempt was made to meet the criterion, although it was relevant.

Poor: The teacher is unable to perform this skill or has only **very limited ability** to perform it.

Fair: The teacher is unable to perform this skill in an acceptable manner but has **some ability** to perform it.

Good: The teacher is able to perform this skill in an **effective** manner.

Excellent: The teacher is able to perform this skill in a **very effective** manner.

Titles of the National Center's Performance-Based Teacher Education Modules

Category A: Program Planning, Development, and Evaluation

- A-1 Prepare for a Community Survey
- A-2 Conduct a Community Survey
- A-3 Report the Findings of a Community Survey
- A-4 Organize an Occupational Advisory Committee
- A-5 Maintain an Occupational Advisory Committee
- A-6 Develop Program Goals and Objectives
- A-7 Conduct an Occupational Analysis
- A-8 Develop a Course of Study
- A-9 Develop Long-Range Program Plans
- A-10 Conduct a Student Follow-Up Study
- A-11 Evaluate Your Vocational Program

Category B: Instructional Planning

- B-1 Determine Needs and Interests of Students
- B-2 Develop Student Performance Objectives
- B-3 Develop a Unit of Instruction
- B-4 Develop a Lesson Plan
- B-5 Select Student Instructional Materials
- B-6 Prepare Teacher-Made Instructional Materials

Category C: Instructional Execution

- C-1 Direct Field Trips
- C-2 Conduct Group Discussions, Panel Discussions, and Symposiums
- C-3 Employ Brainstorming, Buzz Group, and Question Box Techniques
- C-4 Direct Students in Instructing Other Students
- C-5 Employ Simulation Techniques
- C-6 Guide Student Study
- C-7 Direct Student Laboratory Experience
- C-8 Direct Students in Applying Problem-Solving Techniques
- C-9 Employ the Project Method
- C-10 Introduce a Lesson
- C-11 Summarize a Lesson
- C-12 Employ Oral Questioning Techniques
- C-13 Employ Reinforcement Techniques
- C-14 Provide Instruction for Slower and More Capable Learners
- C-15 Present an Illustrated Talk
- C-16 Demonstrate a Manipulative Skill
- C-17 Demonstrate a Concept or Principle
- C-18 Individualize Instruction
- C-19 Employ the Team Teaching Approach
- C-20 Use Subject Matter Experts to Present Information
- C-21 Prepare Bulletin Boards and Exhibits
- C-22 Present Information with Models, Real Objects, and Flannel Boards
- C-23 Present Information with Overhead and Opaque Materials
- C-24 Present Information with Filmstrips and Slides
- C-25 Present Information with Films
- C-26 Present Information with Audio Recordings
- C-27 Present Information with Televised and Videotaped Materials
- C-28 Employ Programmed Instruction
- C-29 Present Information with the Chalkboard and Flip Chart
- C-30 Provide for Students' Learning Styles

Category D: Instructional Evaluation

- D-1 Establish Student Performance Criteria
- D-2 Assess Student Performance: Knowledge
- D-3 Assess Student Performance: Attitudes
- D-4 Assess Student Performance: Skills
- D-5 Determine Student Grades
- D-6 Evaluate Your Instructional Effectiveness

Category E: Instructional Management

- E-1 Project Instructional Resource Needs
- E-2 Manage Your Budgeting and Reporting Responsibilities
- E-3 Arrange for Improvement of Your Vocational Facilities
- E-4 Maintain a Filing System
- E-5 Provide for Student Safety
- E-6 Provide for the First Aid Needs of Students
- E-7 Assist Students in Developing Self-Discipline
- E-8 Organize the Vocational Laboratory
- E-9 Manage the Vocational Laboratory
- E-10 Combat Problems of Student Chemical Use

Category F: Guidance

- F-1 Gather Student Data Using Formal Data-Collection Techniques
- F-2 Gather Student Data Through Personal Contacts
- F-3 Use Conferences to Help Meet Student Needs
- F-4 Provide Information on Educational and Career Opportunities
- F-5 Assist Students in Applying for Employment or Further Education

Category G: School–Community Relations

- G-1 Develop a School–Community Relations Plan for Your Vocational Program
- G-2 Give Presentations to Promote Your Vocational Program
- G-3 Develop Brochures to Promote Your Vocational Program
- G-4 Prepare Displays to Promote Your Vocational Program
- G-5 Prepare News Releases and Articles Concerning Your Vocational Program
- G-6 Arrange for Television and Radio Presentations Concerning Your Vocational Program
- G-7 Conduct an Open House
- G-8 Work with Members of the Community
- G-9 Work with State and Local Educators
- G-10 Obtain Feedback about Your Vocational Program

Category H: Vocational Student Organization

- H-1 Develop a Personal Philosophy Concerning Vocational Student Organizations
- H-2 Establish a Vocational Student Organization
- H-3 Prepare Vocational Student Organization Members for Leadership Roles
- H-4 Assist Vocational Student Organization Members in Developing and Financing a Yearly Program of Activities
- H-5 Supervise Activities of the Vocational Student Organization
- H-6 Guide Participation in Vocational Student Organization Contests

Category I: Professional Role and Development

- I-1 Keep Up to Date Professionally
- I-2 Serve Your Teaching Profession
- I-3 Develop an Active Personal Philosophy of Education
- I-4 Serve the School and Community
- I-5 Obtain a Suitable Teaching Position
- I-6 Provide Laboratory Experiences for Prospective Teachers
- I-7 Plan the Student Teaching Experience
- I-8 Supervise Student Teachers

Category J: Coordination of Cooperative Education

- J-1 Establish Guidelines for Your Cooperative Vocational Program
- J-2 Manage the Attendance, Transfers, and Terminations of Co-Op Students
- J-3 Enroll Students in Your Co-Op Program
- J-4 Secure Training Stations for Your Co-Op Program
- J-5 Place Co-Op Students on the Job
- J-6 Develop the Training Ability of On-the-Job Instructors
- J-7 Coordinate On-the-Job Instruction
- J-8 Evaluate Co-Op Students' On-the-Job Performance
- J-9 Prepare for Students' Related Instruction
- J-10 Supervise an Employer–Employee Appreciation Event

Category K: Implementing Competency-Based Education (CBE)

- K-1 Prepare Yourself for CBE
- K-2 Organize the Content for a CBE Program
- K-3 Organize Your Class and Lab to Install CBE
- K-4 Provide Instructional Materials for CBE
- K-5 Manage the Daily Routines of Your CBE Program
- K-6 Guide Your Students Through the CBE Program

Category L: Serving Students with Special/Exceptional Needs

- L-1 Prepare Yourself to Serve Exceptional Students
- L-2 Identify and Diagnose Exceptional Students
- L-3 Plan Instruction for Exceptional Students
- L-4 Provide Appropriate Instructional Materials for Exceptional Students
- L-5 Modify the Learning Environment for Exceptional Students
- L-6 Promote Peer Acceptance of Exceptional Students
- L-7 Use Instructional Techniques to Meet the Needs of Exceptional Students
- L-8 Improve Your Communication Skills
- L-9 Assess the Progress of Exceptional Students
- L-10 Counsel Exceptional Students with Personal–Social Problems
- L-11 Assist Exceptional Students in Developing Career Planning Skills
- L-12 Prepare Exceptional Students for Employability
- L-13 Promote Your Vocational Program with Exceptional Students

Category M: Assisting Students in Improving Their Basic Skills

- M-1 Assist Students in Achieving Basic Reading Skills
- M-2 Assist Students in Developing Technical Reading Skills
- M-3 Assist Students in Improving Their Writing Skills
- M-4 Assist Students in Improving Their Oral Communication Skills
- M-5 Assist Students in Improving Their Math Skills
- M-6 Assist Students in Improving Their Survival Skills

RELATED PUBLICATIONS

Student Guide to Using Performance-Based Teacher Education Materials
Resource Person Guide to Using Performance-Based Teacher Education Materials
Guide to the Implementation of Performance-Based Teacher Education
Performance-Based Teacher Education: The State of the Art, General Education and Vocational Education

For information regarding availability and prices of these materials contact—AAVIM, American Association for Vocational Instructional Materials, 120 Driftmier Engineering Center, University of Georgia, Athens, Georgia 30602, (404) 542-2586

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